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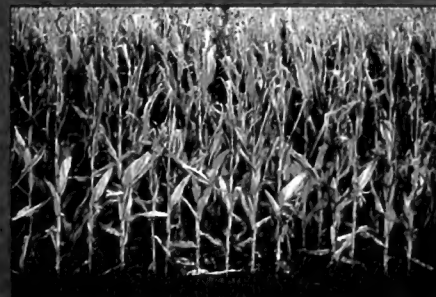
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Critical Trends  
Assessment Project  
Phase II

*Inventory of  
Resource Rich Areas  
in Illinois*

*An Evaluation of  
Ecological Resources*



Published by the  
Illinois Department of Natural Resources  
with Assistance from  
The Nature of Illinois Foundation



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Phase II

*Inventory of Resource Rich Areas  
in Illinois*

*An Evaluation of Ecological Resources*

Prepared for the Illinois Department of Natural Resources  
by Liane Suloway, Mark Joselyn, and Patrick W. Brown  
Center for Wildlife Ecology  
Illinois Natural History Survey

1996

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## INTRODUCTION TO THE PROGRAM

### *“The Inventory of Resource Rich Areas in Illinois” and the Critical Trends Assessment Project*

The following "Inventory of Resource Rich Areas in Illinois" is a product of the Critical Trends Assessment Project and the Ecosystems Program of the Illinois Department of Natural Resources. Both are funded largely through Conservation 2000, a six-year State of Illinois program to enhance nature protection, sport, and outdoor recreation by reversing the decline of the state's ecosystems.

Conservation 2000 is the culmination of three recent natural resource initiatives in Illinois. First, investigators for the Critical Trends Assessment Project inventoried and analyzed existing environmental, ecological, and economic data as part of an effort to establish baseline conditions from which future changes in ecological conditions might be measured. Phase I of CTAP, completed in the fall of 1994, concluded that:

- ◆ the emission and discharge of regulated pollutants over the past 20 years has declined in Illinois, in some cases dramatically;
- ◆ existing data suggest that the condition of natural systems in Illinois is rapidly declining as a result of fragmentation and continued stress;
- ◆ data designed to monitor compliance with environmental regulations or the status of individual species are not sufficient to assess ecological health statewide.

The Illinois Conservation Congress and Governor Edgar's Water Resources and Land Use Priorities Task Force underlined the urgency of these findings. The Conservation Congress concluded that better stewardship of the state's land and water resources could be achieved by managing them on an ecosystem basis. Traditional management and assessment practices focus primarily on the protection of relatively small tracts of land (usually under public ownership) and the cultivation of single species (usually game animals or rare and endangered plants and animals). However, ecosystems extend beyond the boundaries of the largest parks, nature preserves, and fish and wildlife areas. Unless landscapes are managed on this larger scale, it will prove impossible to preserve, protect, and perpetuate Illinois' richly diverse natural resource base.

It plainly being impossible for Illinois governments to acquire resources on the ecosystem scale when more than 90% of the state's land area is privately owned, the Task Force and the Congress called for public agencies and private landowners to cooperate in a new approach to natural resources programs. If landowners can protect, enhance, or restore precious natural resources through enlightened private management, the need for public acquisition can be reduced.

The Congress and the Task Force agreed that such programs ought to be:

- ◆ organized on a regional scale;
- ◆ voluntary and incentive-based;
- ◆ guided by comprehensive and comprehensible ecosystem-based scientific information;
- ◆ initiated at the grassroots rather than in Springfield.

Finally, the Congress and the Task Force agreed that natural resource protection need not hamper local economic development but may enhance it through tourism and outdoor recreation.

CTAP described the reality of ecosystem decline in Illinois, and the Congress and the Task Force laid out principles for new approaches to reversing it. Conservation 2000 is designed to achieve that reversal. This six-year initiative will implement a number of the recommendations of the Congress and the Task Force, drawing on \$100 million to fund nine new programs in three State of Illinois agencies.

One of these programs is IDNR's Ecosystems Program, whose purpose is to support cooperative public-private partnerships that merge natural resource stewardship with compatible economic and recreational development. The program redirects existing department programs to support new local and regional

resource protection initiatives. The Ecosystems Program also is the means by which the State of Illinois may support Ecosystem Partnerships. These are coalitions of local and regional interests seeking to maintain and enhance ecological and economic conditions in local landscapes (usually defined by watershed boundaries). In addition to coordinating its own programs with those of its local partners, the Ecosystems Program will:

- ◆ provide technical assistance to the partnerships, such as resource management plans for use by participating landowners;
- ◆ assess resources in the area encompassed by each Ecosystem Partnership, collecting data that the local partners themselves may use to set project priorities and design projects and supplying scientific support to ecosystem partners, including on-going monitoring of Ecosystem Partnership areas;
- ◆ fund site-specific ecosystem projects recommended by each partnership. Such projects may involve habitat protection and improvement, technical assistance, research, and education, including projects that seek to expand on the relationships between natural resources, economic development, and recreation.

The landscape level approach to identifying and managing natural resources is critical to the long-term preservation of the rich heritage of Illinois. This publication identifies and describes large areas where such resources are concentrated. Four parameters were used in the analysis: forests, wetlands, Illinois Natural Areas Inventory sites, and Biologically Significant Streams. Watersheds were used as the geographic unit for evaluation.



## STATEWIDE SUMMARIES

*The RRAs include 45 % of the bottomland, 43 % of the nonforested wetland, and 34 % of the upland forest in Illinois while occupying less than 20 % of the state's total area.*

Thirty Resource Rich Areas (RRAs) (Figure 1) were identified using the methods described in Methodology (page 161). In total they cover 19.8% of the state (Table 1), encompassing seven of the state's 36 million acres. However, the actual area of biologically important natural resources is less than the total area of the RRAs. This results from the use of watersheds as the unit of analysis. In most RRAs, the existing natural resources occupy a concentrated portion of the watershed, or core area, often along riparian corridors. While nearly half the area within the RRAs is in agricultural production, less than 15% of the state's total cropland occurs in the RRAs. The RRAs include over one-third of the woodlands and nearly half the wetlands in Illinois (Table 1).

The RRAs range dramatically in size from 15,144 to 626,795 acres (Table 2). The largest RRAs are Big Rivers, the Southern Till Plain, and the Middle Illinois River. The smallest RRAs—Sugar River, Thorn Creek, Des Plaines River, Illinois Beach, and the DuPage River—are found in the northern part of the state, the latter four in highly urbanized areas. RRAs are distributed throughout the state and occur generally on the main stems of the larger rivers or in the southern part of the state.

### LANDCOVER

Bottomland, nonforested wetland, and upland forest are well represented in the RRAs. The RRAs include 45.1% of the bottomland, 42.6% of the nonforested wetland, and 33.9% of the upland forest in Illinois, while occupying less than 20% of the total area in the state. Landcover classes with the lowest percentages in RRAs were cropland (14.9%), grassland (20.2%), and urban (20.6%). Within the RRAs cropland was the dominant landcover class (45.4%), followed by upland forests (19.8%) and grassland (18.3%).

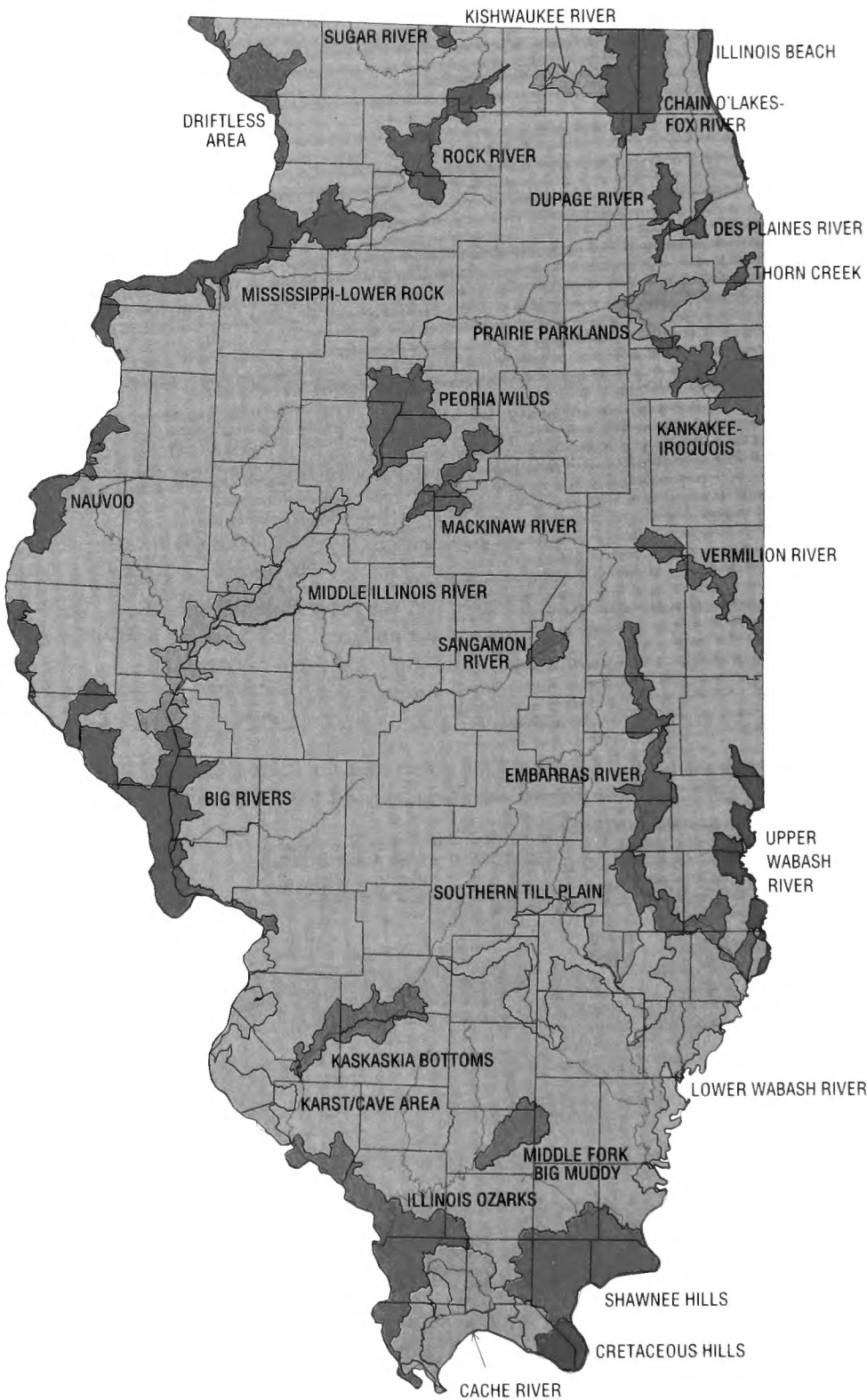
*Table 1. Landcover Composition for Resource Rich Areas and for Illinois. The "Forest - total" category is the combination of upland and bottomland forest classes and the "Wetlands - total" category is the total of nonforested wetland and bottomland forest.*

| Landcover Class                       | %State Acreage Included in RRAs | Composition of RRAs | Composition of Illinois | Acres in RRAs         | Acres Statewide       |
|---------------------------------------|---------------------------------|---------------------|-------------------------|-----------------------|-----------------------|
| Upland Forest (Forest - total)        | 33.9 (35.8)                     | 19.8 (25.7)         | 11.6 (14.0)             | 1,416,602 (1,815,373) | 4,179,367 (5,064,576) |
| Bottomland Forest                     | 45.1                            | 5.6                 | 2.5                     | 398,771               | 885,209               |
| Nonforested Wetlands (Wetland- total) | 42.6 (44.6)                     | 1.1 (6.8)           | 0.5 (3.0)               | 77,552 (476,323)      | 182,245 (1,067,454)   |
| Urban and Built-Up                    | 20.6                            | 5.4                 | 5.2                     | 389,463               | 1,886,912             |
| Cropland                              | 14.9                            | 45.4                | 60.4                    | 3,246,905             | 21,773,580            |
| Grassland                             | 20.2                            | 18.3                | 18.0                    | 1,308,331             | 6,489,045             |
| Water                                 | 47.9                            | 4.5                 | 1.8                     | 319,439               | 666,266               |
| Total                                 | 19.8% of state                  | 100.0% of sites     | 100.0% of state         | 7,157,063             | 36,062,624            |

### NATURAL AREAS INVENTORY, BIOLOGICALLY SIGNIFICANT STREAMS, AND NATURAL HERITAGE SITES

The Resource Rich Areas include 76% of all Illinois Natural Areas Inventory (INAI) acreage and 55% of all INAI sites in the state. The distribution of INAI sites relative to RRAs is depicted in Figure 2. The Driftless Area and the Karst/Cave Area have the highest INAI acreages (Table 2). The greatest number of

Figure 1. Resource Rich Areas



INAI sites occurs in Shawnee Hills, followed by Chain O' Lakes-Fox River, Cache River, Big Rivers, and Illinois Ozarks.

Forty-eight percent of all Biologically Significant Stream (BSS) mileage lies within RRA sites. The Shawnee Hills and Embarras River RRAs have the highest BSS mileage with 126 and 112 miles respectively (Table 2). Eight RRAs have no BSS streams. The distribution of BSS streams relative to RRAs is depicted in Figure 3.

Chain O' Lakes-Fox River ranked highest in occurrence of Heritage points with 476, followed by three RRAs in southern Illinois—Cache River (298), Shawnee Hills (255), and Illinois Ozarks (227). The number reflects a combination of significant communities, endangered and threatened species locations, geological features, and colonial nesting bird sites (rookeries).

**Table 2. Illinois Natural Areas Inventory (INAI), Biologically Significant Streams (BSS), and Natural Heritage occurrences for Resource Rich Areas.**

| Name of<br>Resource Rich Area | Total<br>acres | INAI<br>acres | # INAI<br>sites | BSS<br>Miles | # Heritage<br>occurrences |
|-------------------------------|----------------|---------------|-----------------|--------------|---------------------------|
| Driftless Area                | 191,814        | 30,556        | 19              | 22.4         | 109                       |
| Sugar River                   | 15,144         | 2,993         | 2               | 4.5          | 24                        |
| Chain O Lakes-Fox River       | 285,844        | 9,442         | 72              | 35.6         | 476                       |
| Illinois Beach                | 49,172         | 4,252         | 15              | 0            | 155                       |
| Kishwaukee River              | 64,386         | 362           | 3               | 15.0         | 8                         |
| Rock River                    | 206,215        | 5,416         | 20              | 17.5         | 101                       |
| DuPage River                  | 51,653         | 1,576         | 7               | 0            | 17                        |
| Mississippi-Lower Rock        | 457,449        | 18,590        | 17              | 44.2         | 74                        |
| Des Plaines River             | 43,470         | 2,115         | 11              | 0            | 61                        |
| Thorn Creek                   | 20,614         | 927           | 5               | 0            | 13                        |
| Prairie Parklands             | 152,669        | 10,037        | 18              | 23.8         | 85                        |
| Kankakee-Iroquois             | 231,005        | 6,731         | 17              | 63.3         | 67                        |
| Peoria Wilds                  | 277,847        | 1,859         | 24              | 0            | 51                        |
| Nauvoo                        | 150,316        | 7,409         | 9               | 0            | 36                        |
| Mackinaw River                | 125,008        | 1,139         | 4               | 26.9         | 7                         |
| Middle Illinois River         | 575,515        | 13,474        | 38              | 0            | 134                       |
| Vermilion River               | 132,252        | 1,998         | 14              | 58.0         | 44                        |
| Big Rivers                    | 626,795        | 10,514        | 61              | 28.9         | 150                       |
| Embarras River                | 447,925        | 5,009         | 15              | 112.5        | 50                        |
| Sangamon River                | 53,734         | 880           | 2               | 15.5         | 8                         |
| Upper Wabash River            | 170,654        | 2,212         | 4               | 76.4         | 8                         |
| Southern Till Plain           | 584,788        | 6,903         | 15              | 48.8         | 31                        |
| Karst/Cave Area               | 291,305        | 26,230        | 27              | 2.9          | 92                        |
| Lower Wabash River            | 163,894        | 4,639         | 12              | 75.5         | 34                        |
| Kaskaskia Bottoms             | 197,654        | 1,681         | 10              | 31.1         | 28                        |
| Middle Fork Big Muddy         | 114,908        | 388           | 1               | 0            | 2                         |
| Illinois Ozarks               | 466,755        | 17,010        | 59              | 33.1         | 227                       |
| Shawnee Hills                 | 477,112        | 8,638         | 83              | 125.9        | 255                       |
| Cache River                   | 443,616        | 18,444        | 63              | 52.8         | 298                       |
| Cretaceous Hills              | 87,928         | 1,940         | 19              | 14.1         | 74                        |
| TOTALS                        | 7,157,441      | 223,364       | *659            | 928.7        | 2,719                     |

\* Natural Areas occurring in more than one RRA are counted only once.

### NATURAL HERITAGE COMMUNITIES

Of the 968 significant community occurrences in Illinois, 58% are located in RRAs (Table 3). Several community types are well represented in the RRAs, particularly caves, primary types, savannas, and wetlands. The distribution of significant community types relative to the RRAs is illustrated in Figures 4–11.

**Table 3. Occurrence of Significant Community Types in Resource Rich Areas and in Illinois.**

| Community Type                     | Occurrences<br>Statewide | Occurrences<br>in RRAs | Percent of each type<br>included in RRAs |
|------------------------------------|--------------------------|------------------------|--|
| Forest                             | 190                      | 80                     | 42.1                                     |
| Floodplain Forest                  | 62                       | 36                     | 58.1                                     |
| Wetland                            | 188                      | 133                    | 70.7                                     |
| Prairie                            | 312                      | 147                    | 47.1                                     |
| Savanna                            | 54                       | 40                     | 74.1                                     |
| Cave                               | 49                       | 44                     | 89.8                                     |
| Lake                               | 42                       | 25                     | 59.5                                     |
| Primary (glade, cliff, lake shore) | 71                       | 55                     | 77.5                                     |
| TOTAL                              | 968                      | 560                    | 57.9                                     |

### STATE AND FEDERALLY OWNED LAND

The number of state owned entities in RRAs varies from 0 to 9 (Table 4). The Middle Illinois River RRA has by far the most state-owned acreage with 31,630 acres, although this represents only 5.5% of its area. Illinois Beach has the highest percentage of area that is state owned (6.3%).

Federal ownership is concentrated in southern Illinois where the Shawnee National Forest is located (Shawnee Hills, Illinois Ozarks, Cretaceous Hills, and Cache River) and in the Driftless Area and Prairie Parklands RRAs (Table 4). State and federal lands are shown relative to the RRAs in Figure 12.

**Table 4. State and Federally Owned Lands in Resource Rich Areas.**

| Name of<br>Resource Rich Area | STATE LANDS*  |                 |                 |             |                |             | FEDERAL LANDS**  |             |
|-------------------------------|---------------|-----------------|-----------------|-------------|----------------|-------------|------------------|-------------|
|                               | # of<br>Parks | # Cons<br>Areas | # of<br>Forests | # of<br>FWA | State<br>acres | % of<br>RRA | Federal<br>acres | % of<br>RRA |
| Driftless Area                | 1             | 0               | 0               | 1           | 3,354          | 1.7         | 40,6122          | 1.2         |
| Sugar River                   | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Chain O Lakes-Fox River       | 2             | 0               | 0               | 0           | 5,338          | 1.9         | 0                | 0.0         |
| Illinois Beach                | 1             | 0               | 0               | 0           | 3,092          | 6.3         | 726              | 1.5         |
| Kishwaukee River              | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Rock River                    | 3             | 0               | 1               | 0           | 4,706          | 2.3         | 0                | 0.0         |
| DuPage River                  | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Mississippi-Lower Rock        | 2             | 0               | 0               | 1           | 1,493          | 0.3         | 15,694           | 3.4         |
| Des Plaines River             | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Thorn Creek                   | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Prairie Parklands             | 2             | 1               | 0               | 0           | 7,324          | 4.8         | 26,904           | 17.6        |
| Kankakee-Iroquois             | 1             | 1               | 0               | 0           | 6,415          | 2.8         | 0                | 0.0         |
| Peoria Wilds                  | 0             | 4               | 0               | 1           | 9,570          | 3.4         | 1,589            | 0.6         |
| Nauvoo                        | 1             | 0               | 0               | 0           | 140            | 0.1         | 0                | 0.0         |
| Mackinaw River                | 0             | 0               | 0               | 1           | 1,397          | 1.1         | 0                | 0.0         |
| Middle Illinois River         | 1             | 5               | 1               | 2           | 31,630         | 5.5         | 21,499           | 3.7         |
| Vermilion River               | 1             | 0               | 0               | 1           | 5,944          | 4.5         | 0                | 0.0         |
| Big Rivers                    | 1             | 1               | 0               | 0           | 9,547          | 1.5         | 37,901           | 6.0         |
| Embarras River                | 3             | 0               | 0               | 3,226       | 0.7            | 0           | 0.0              | 1           |

*table continued on page 7*



**Table 4. State and Federally Owned Lands in Resource Rich Areas. (continued)**

| Name of<br>Resource Rich Area | STATE LANDS*  |                 |                 |             |                | % of<br>RRA | FEDERAL LANDS**  |             |
|-------------------------------|---------------|-----------------|-----------------|-------------|----------------|-------------|------------------|-------------|
|                               | # of<br>Parks | # Cons<br>Areas | # of<br>Forests | # of<br>FWA | State<br>acres |             | Federal<br>acres | % of<br>RRA |
| Sangamon River                | 0             | 0               | 0               | 0           | 0              | 0.0         | 0                | 0.0         |
| Driftless Area                | 1             | 0               | 0               | 1           | 3,354          | 1.7         | 40,6122          | 1.2         |
| Upper Wabash River            | 1             | 0               | 0               | 0           | 3              | 0.0         | 0                | 0.0         |
| Southern Till Plain           | 0             | 0               | 0               | 1           | 554            | 0.1         | 682              | 0.1         |
| Karst/Cave Area               | 1             | 0               | 0               | 1           | 3,364          | 1.2         | 0                | 0.0         |
| Lower Wabash River            | 1             | 1               | 0               | 0           | 1,261          | 0.8         | 0                | 0.0         |
| Kaskaskia Bottoms             | 1             | 0               | 0               | 1           | 6,916          | 3.5         | 494              | 0.2         |
| Middle Fork Big Muddy         | 0             | 0               | 0               | 1           | 22             | 0.0         | 0                | 0.0         |
| Illinois Ozarks               | 1             | 1               | 1               | 1           | 18,668         | 4.0         | 81,266           | 17.4        |
| Shawnee Hills                 | 2             | 1               | 0               | 0           | 2,060          | 0.4         | 136,817          | 28.7        |
| Cache River                   | 3             | 2               | 0               | 0           | 11,924         | 2.7         | 53,741           | 12.1        |
| Cretaceous Hills              | 1             | 0               | 0               | 0           | 619            | 0.7         | 11,999           | 13.6        |
| TOTALS                        | 30            | 17              | 3               | 12          | 138,567        | 0.6         | 429,924          | 6.0         |

\* Parks, Cons Areas (Conservation Areas), Forests, and FWA (Fish and Wildlife Area) refer to state lands.

\*\* Federal Land figures for Shawnee National Forest are based on ownership boundaries rather than the more general proclamation boundary.

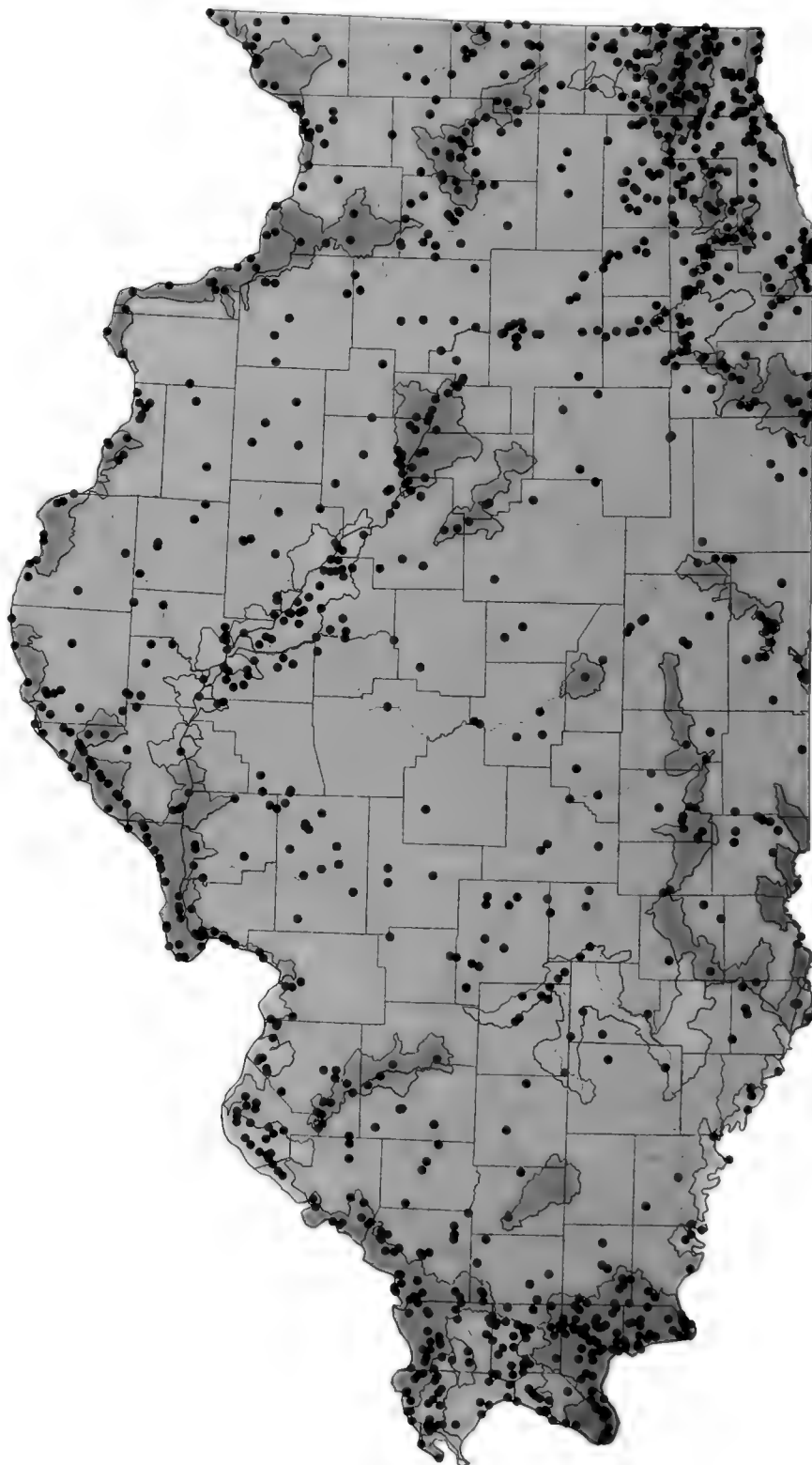
### NATURAL DIVISIONS

All 14 natural divisions are represented in the thirty RRAs. The Coastal Plain, Shawnee Hills, and Lower Mississippi Bottomlands divisions are particularly well represented (Table 5). The Western Forest-Prairie and Grand Prairie are the least represented; these divisions have been extensively converted from presettlement conditions to agricultural use (Schwegman, et al. 1973). Figure 13 illustrates the relationship of natural divisions to the RRAs. Many RRAs are comprised of a single natural division, such as Chain O' Lakes-Fox River, Kishwaukee River, DuPage River, Thorn Creek, Kankakee-Iroquois, Mackinaw River, Sangamon River, Kaskaskia Bottoms, and the Middle Fork of the Muddy River. Others are composites of several divisions, particularly the Mississippi-Lower Rock and Big Rivers RRAs.

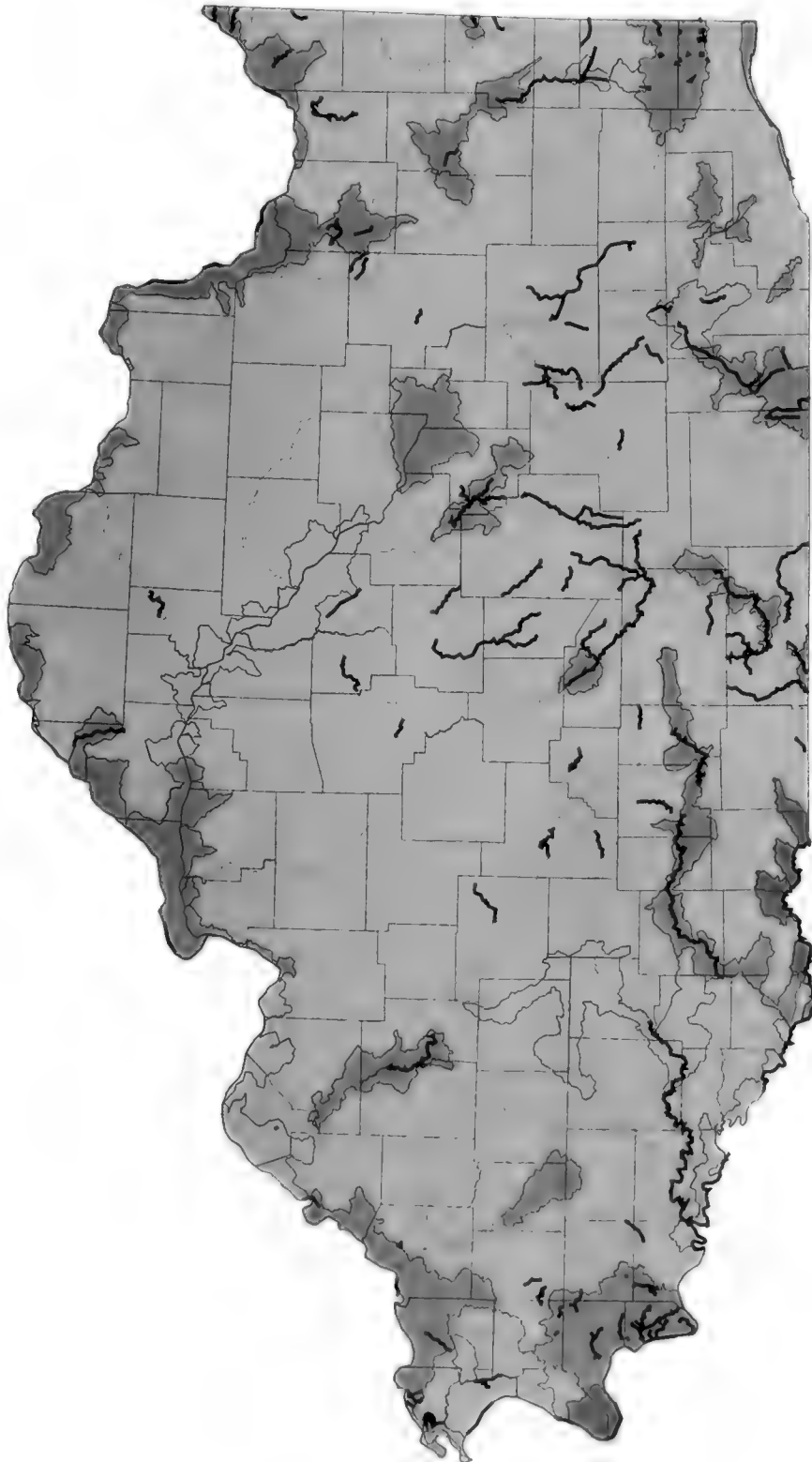
**Table 5. Natural Divisions in Illinois and in Resource Rich Areas. Natural divisions are listed from lowest to highest area in Illinois.**

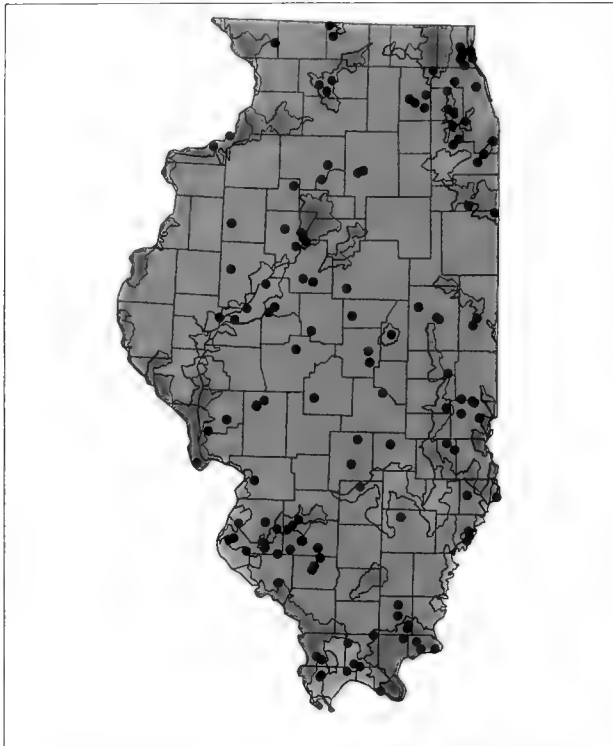
| Name of Natural Division                        | Percent of<br>Illinois | Percent of Division<br>contained in RRAs |
|---|------------------------|--|
| Wisconsin Driftless                             | 1.0                    | 37.3                                     |
| Lower Mississippi Bottomlands                   | 1.0                    | 79.7                                     |
| Illinois and Mississippi River Sand Areas       | 1.1                    | 61.4                                     |
| Ozarks  | 1.1                    | 63.7                                     |
| Coastal Plain                                   | 1.3                    | 85.2                                     |
| Shawnee Hills                                   | 2.5                    | 81.6                                     |
| Upper Mississippi and Illinois River Bottomland | 3.3                    | 64.5                                     |
| Rock River Hill Country                         | 4.2                    | 14.8                                     |
| Middle Mississippi Border                       | 4.3                    | 35.6                                     |
| Wabash Border                                   | 4.8                    | 34.0                                     |
| Northeastern Morainial                          | 6.8                    | 22.6                                     |
| Western Forest-Prairie                          | 12.2                   | 4.4                                      |
| Southern Till Plain                             | 19.8                   | 15.2                                     |
| Grand Prairie                                   | 36.1                   | 8.6                                      |

Figure 2. Natural Areas Inventory Sites

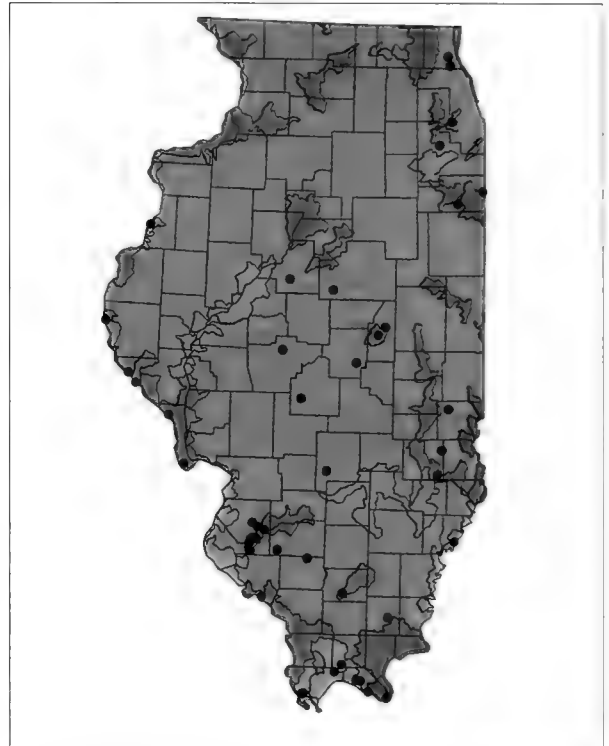


**Figure 3. Biologically Significant Streams**

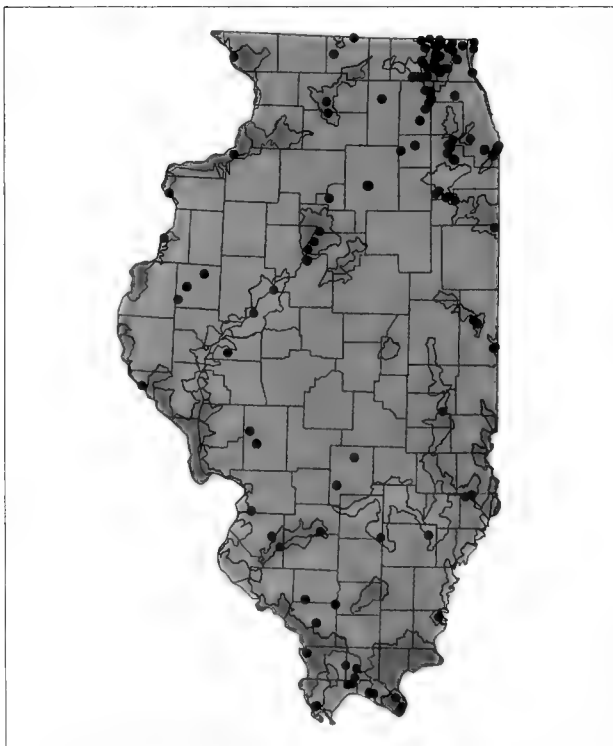




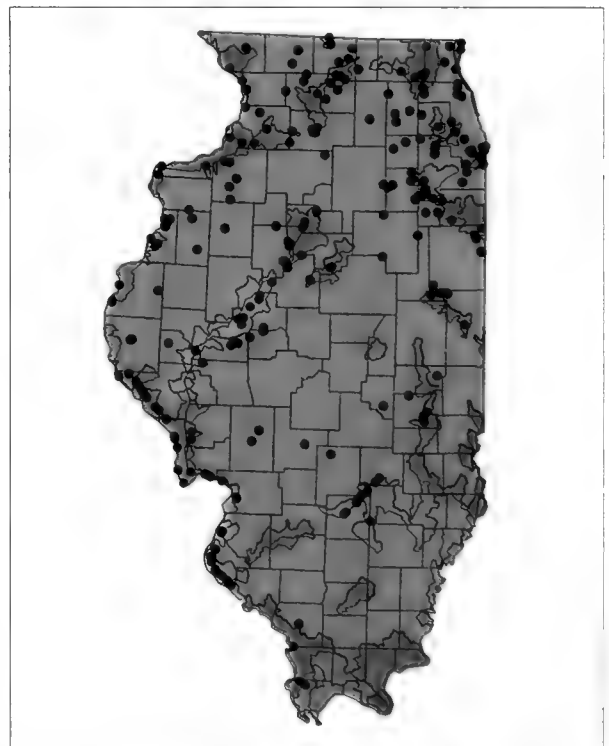
**Figure 4. Upland Forest Heritage Sites**



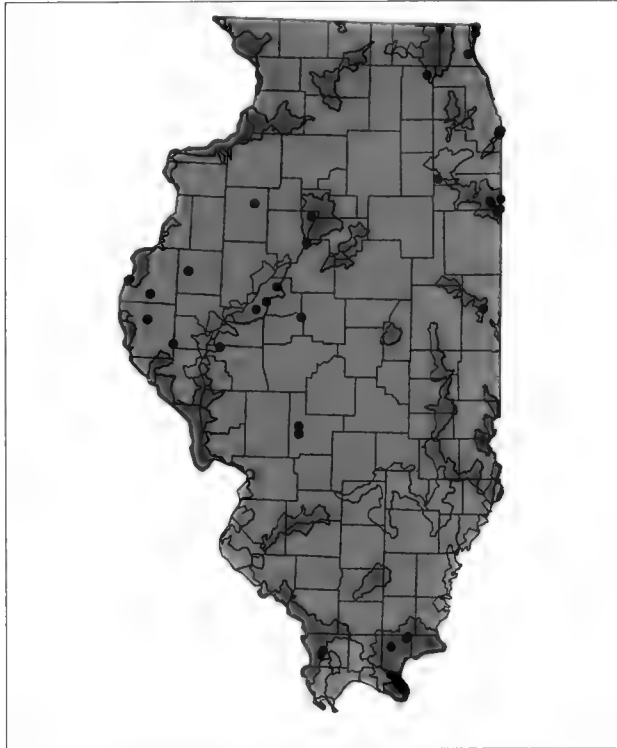
**Figure 5. Floodplain Forest Heritage Sites**



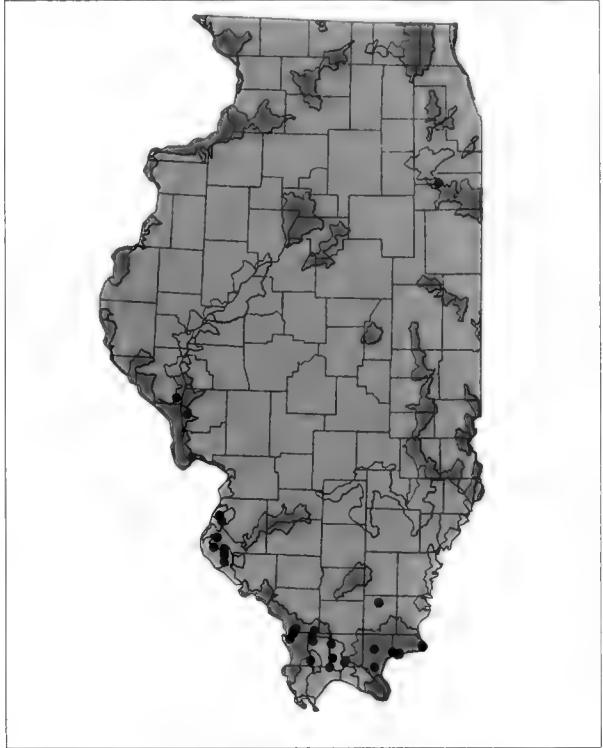
**Figure 6. Wetland Heritage Sites**



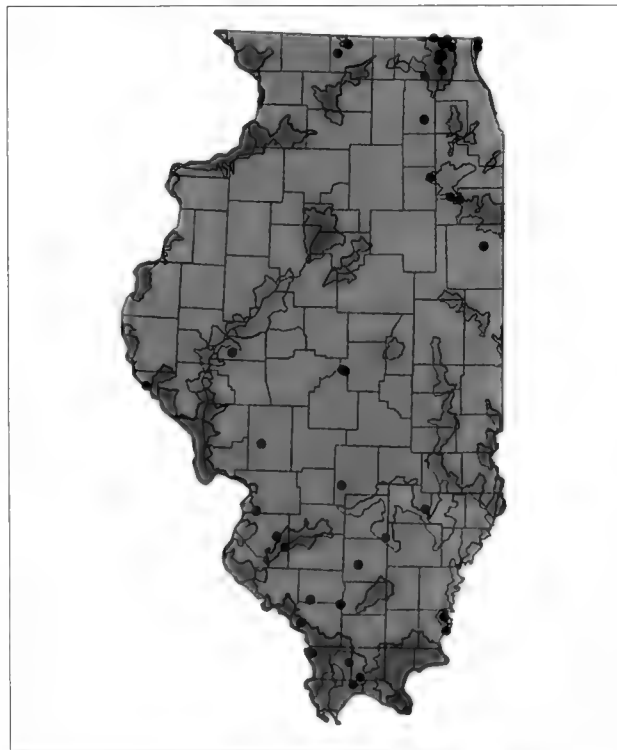
**Figure 7. Prairie Heritage Sites**



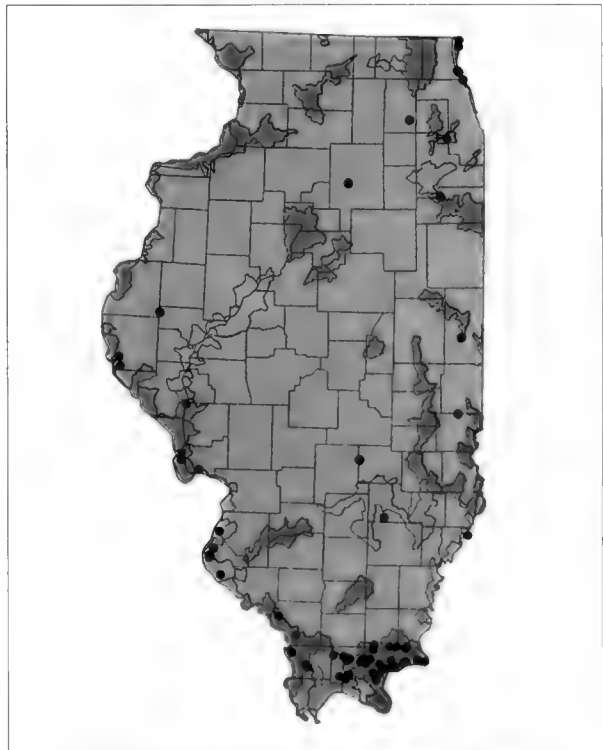
**Figure 8. Savanna Heritage Sites**



**Figure 9. Cave Heritage Sites**



**Figure 10. Lake Heritage Sites**

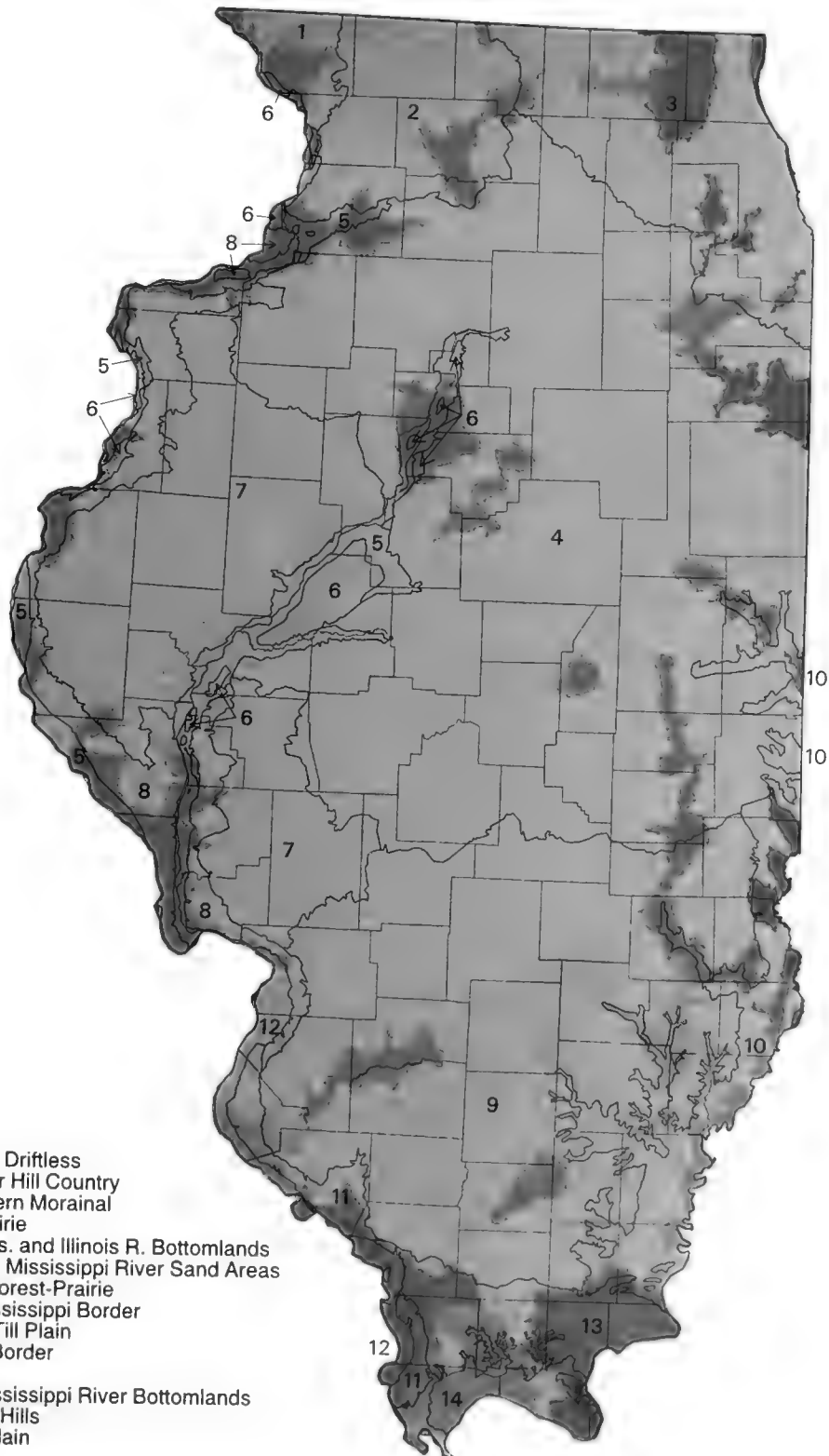


**Figure 11. Primary Heritage Sites**

**Figure 12. State and Federal Land**



**Figure 13. Natural Divisions**



## WHAT TO LOOK FOR IN THE RESOURCE RICH AREA SUMMARIES

The 30 RRAs are described in detail in this section of the report. The following information is provided for each RRA:

- Overview (brief characterization of the site and graph of the landcover composition)
- Summary table of total size, Illinois Natural Areas Inventory Sites (INAI) ,  
Biologically Significant Streams (BSS), and state and federally owned land
- Landcover data table
- Illinois Natural Areas Inventory table
- Biologically Significant Streams table
- Natural Heritage Categories table
- State and Federal Lands table
- Nature Preserves table
- Natural Division table
- Natural Resource Map (locations of Natural Areas, Biologically Significant Streams,  
state and federal lands)
- Landcover map

IN THE SUMMARY TABLES OF THE 30 SITE DESCRIPTIONS, THE FOLLOWING SHOULD BE NOTED: The slight variation in total acreages of RRAs listed in the Summary table and the Landcover table is related to the use of different analysis methods. Acreages in this publication are generated from digital coverages and are not authoritative; they may differ slightly from acreages listed in other sources. For Illinois Natural Areas, some sites are represented in the Geographic Information System (GIS) only by point locations because maps were not available at the time of this analysis. Therefore, no acreages were listed (the acreage for these sites is marked with an \*). Some of the features included in the Biologically Significant Streams Inventory are lakes, in which case the mileage was calculated as the perimeter of the lake. In the analysis of Heritage occurrences, the stream community type was not used because of the difficulties of using point locations as representations for stream lengths and because significant streams were well represented in other tables (Natural Areas Inventory and Biologically Significant Streams). State land in this publication is limited to parks, conservation areas, forests, and fish and wildlife areas. The grasslands category includes pastures, hayfields, idle fields, rural road and railroad rights-of-way, and prairie remnants.

EACH RRA IS REPRESENTED BY A NATURAL RESOURCES MAP AND A LANDCOVER MAP. Feature labels are generally to the right of the feature unless this was not possible. The maps were designed to maximize the area on the page, therefore scales vary between maps. A key to feature names contained on the maps follows.

|     |                                    |
|-----|------------------------------------|
| NA  | Natural Area                       |
| NA* | Natural Area represented as points |
| SP  | State Park                         |
| SCA | State Conservation Area            |
| FWA | State Fish and Wildlife Area       |
| SF  | State Forest                       |
| NF  | National Forest                    |
| NWR | National Wildlife Refuge           |

Federal Land labels are in capital letters.

The Shawnee National Forest is represented on the maps by many scattered ownership boundaries, which are unlabeled, and a more general proclamation boundary.





## DRIFTLESS AREA

*The Driftless Area RRA occupies a physiographically unique part of the state that escaped Pleistocene glaciation. The area is characterized by rolling hills and a dissected pattern of wooded ridges and includes such prominent features as canyons, ravines, bluffs, and palisades. Some of the flora and fauna are distinctive and unique in the state, including several plant species which are northern species or preglacial and interglacial relicts.*

**LANDCOVER** ♦ The predominant landcover type in this RRA is grassland. The Driftless Area RRA has the highest percentage of grassland of all the sites (37%). The site is one-fourth wooded—22% upland woods and nearly 6% bottomland woods. Much of the woodland is found on ridges. Twenty percent of the area is cropland; this is one of the few nonurban RRAs where cropland is not the predominant landcover type.

**NATURAL AREAS** ♦ There are 19 Natural Areas in this RRA. This site contains more Natural Area acreage than any other RRA (30,556 acres, 16% of the site area). The Savanna Army Depot accounts for over 14,000 acres; otter habitat and Spring Lake, a large lake associated with the Mississippi River, are other large Natural Areas.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ This site contains 22.4 miles of streams identified as biologically significant.

**HERITAGE SITES** ♦ There are 109 Heritage occurrences in the Driftless Area RRA: three significant community types, 30 plant species, 20 animal species, and three rookeries.

**STATE AND FEDERAL LAND** ♦ Mississippi Palisades State Park is located in this RRA as well as one state fish and wildlife area. This site has the second highest percentage of area in federal ownership (21% of the area; 40,612 acres). Federal lands are the Upper Mississippi Wildlife and Fish Refuge (26,579 acres) and the Savanna Army Depot (14,033 acres). See sidebar on page 16.

**NATURE PRESERVES** ♦ There are four Nature Preserves in this RRA. Significant features include sand prairie, sand dune and blowout, cliff, hill prairie, and seep springs.

**NATURAL DIVISIONS** ♦ Nearly three-fourths of the Driftless Area RRA is comprised of the Wisconsin Driftless Division. This RRA is the only site that includes this division; 37% of the division, which itself covers only 1% of the state, lies within this site.

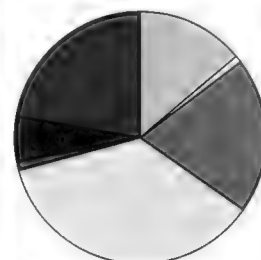
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 191,814 |
| Natural Areas                           |         |
| Acreage                                 | 30,556  |
| Number                                  | 19      |
| Biologically Significant Stream Mileage | 22.4    |

**Size:**  
191,814 acres  
300 square miles

**Location:**  
Northwestern  
Illinois on the  
Mississippi River;  
Jo Daviess, Carroll,  
and Whiteside  
counties

### Landcover at a Glance



|                   |     |
|-------------------|-----|
| upland forest     | 22% |
| bottomland forest | 6%  |
| wetland           | <1% |
| grassland         | 37% |
| cropland          | 20% |
| urban built-up    | 1%  |
| water             | 14% |

**T**he Savanna Army Depot is currently being decommissioned as an ordnance storage facility. It covers approximately 20 square miles and includes bottomland, oak forest, wetlands, upland sand prairie, and habitat for 32 endangered or threatened plants and animals. Approximately 9,000 acres will be transferred to the U.S. Fish and Wildlife Service for addition to the Upper Mississippi River Wildlife and Fish Refuge.

|                             |        |
|-----------------------------|--------|
| Natural Heritage Sites      | 109    |
| State Land                  |        |
| State Parks                 | 1      |
| State Conservation Areas    | 0      |
| State Forests               | 0      |
| State Fish & Wildlife Areas | 1      |
| Acreage                     | 3,354  |
| Percentage of RRA           | 1.7    |
| Federal Land                |        |
| Acreage                     | 40,612 |
| Percentage of RRA           | 21.2   |

| LANDCOVER            | <u>Acres</u>     | <u>% of RRA</u> |
|----------------------|------------------|-----------------|
| Upland forest        | 41,587.13        | 21.68           |
| Bottomland forest    | 10,643.35        | 5.55            |
| Wetland- nonforested | 1,119.55         | 0.58            |
| Grassland            | 71,811.77        | 37.44           |
| Cropland             | 37,603.67        | 19.60           |
| Urban/Built-up       | 2,710.36         | 1.41            |
| Water                | <u>26,338.33</u> | <u>13.73</u>    |
| TOTAL                | 191,814.16       | 99.99           |

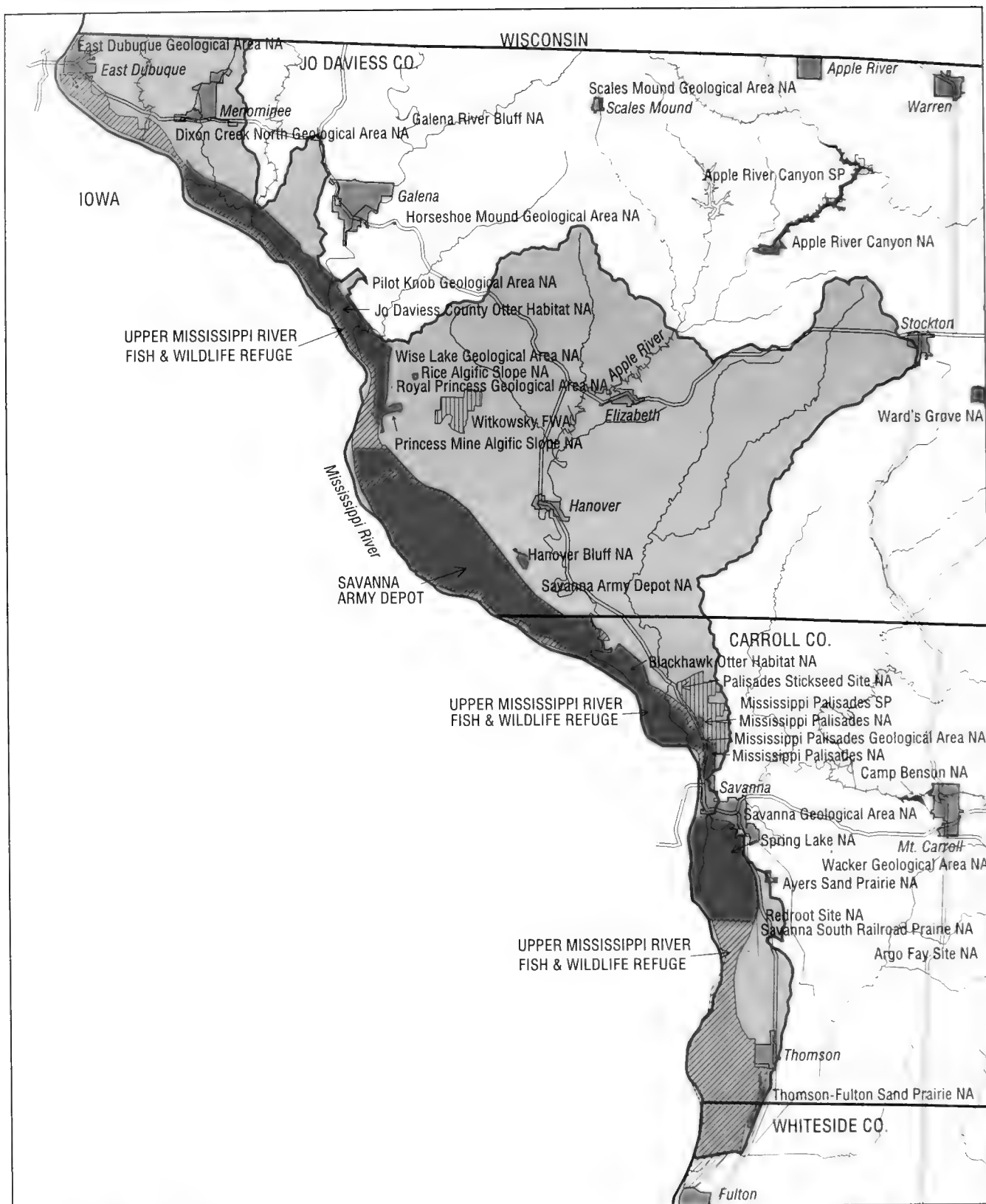
| ILLINOIS NATURAL AREAS INVENTORY SITES | <u>Acres</u> |
|--|--------------|
| Ayers Sand Prairie                     | 29           |
| Blackhawk Otter Habitat                | 3,625        |
| Dixon Creek North Geological Area      | 2            |
| East Dubuque Geological Area           | 5            |
| Hanover Bluff                          | 164          |
| Jo Daviess County Otter Habitat        | 6,550        |
| Mississippi Palisades                  | 412          |
| Mississippi Palisades Geological Area  | 2            |
| Palisades Stickseed Site               | <1           |
| Pilot Knob Geological Area             | 1            |
| Princess Mine Algific Slope            | 154          |
| Redroot Site                           | 1            |
| Rice Algific Slope                     | 49           |
| Royal Princess Geological Area         | 3            |
| Savanna Army Depot                     | 14,323       |
| Savanna South Railroad Prairie         | 61           |
| Spring Lake                            | 4,913        |
| Thomson-Fulton Sand Prairie            | 262          |
| Wise Lake Geological Area              | 2            |

| BIOLOGICALLY SIGNIFICANT STREAMS           | <u>Miles</u> |
|--|--------------|
| Apple River, Wolf Creek to Mill Creek      | 12.0         |
| Menominee River                            | 5.1          |
| Mississippi River, rm 545-550, Carroll Co. | 5.3          |

| NATURAL HERITAGE CATEGORIES       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Wetland                           | 1                  | 1                    |
| Prairie                           | 2                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 27                 | 11                   |
| Fish                              | 3                  | 2                    |





|  |               |                 |
|--|---------------|-----------------|
| Mammal   | 15            | 2               |
| Reptile  | 3             | 2               |
| Crustacean                                     | 1             | 1               |
| Mollusk  | 2             | 2               |
| Threatened and Endangered Plants               |               |                 |
| Plant-Dicot                                    | 29            | 21              |
| Plant-Gymnosperm                               | 1             | 1               |
| Plant-Monocot                                  | 11            | 7               |
| Plant-Fern/Fern Ally                           | 6             | 1               |
| Geological Feature                             |               |                 |
| Geological Feature                             | 5             | 1               |
| Other  |               |                 |
| Rookery  | 3             | 1               |
| STATE AND FEDERAL LAND                         |               |                 |
| State Parks                                    |               | <u>Acres</u>    |
| Mississippi Palisades                          |               | 2,350           |
| State Conservation Areas                       |               | 0               |
| State Forests                                  |               | 0               |
| State Fish and Wildlife Areas                  |               |                 |
| Witkowsky                                      |               | 1,004           |
| Federal Land                                   |               |                 |
| Savanna Army Depot                             |               | 14,033          |
| Upper Mississippi River Fish & Wildlife Refuge |               | 26,579          |
| NATURE PRESERVES                               |               | <u>Acres</u>    |
| Ayers Sand Prairie                             |               | 23              |
| Hanover Bluff                                  |               | 390             |
| Sentinel                                       |               | 51              |
| Thomson-Fulton Sand Prairie                    |               | 83              |
| NATURAL DIVISIONS                              | <u>Acres</u>  | <u>% of</u>     |
|  | <u>in RRA</u> | <u>RRA</u>      |
| Wisconsin Driftless                            | 135,938       | 72.6            |
| Major Water Bodies                             | 21,236        | 11.3            |
| Upper Mississippi R                            |               |                 |
| and Illinois R Bottomlands                     | 18,658        | 10.0            |
| Illinois R and Mississippi R Sand Areas        | 11,501        | 6.1             |
|  |               | <u>% of</u>     |
|  |               | <u>Division</u> |
|  |               | 37.0            |
|  |               | 1.9             |
|  |               | 1.6             |
|  |               | 3.0             |

**A**lgific slopes are north-facing rocky slopes that retain subsurface ice through most of the year. In Illinois they occur only in the Driftless Area. The cold microclimate created on the surface of the slope supports relict northern and Pleistocene biota, including many endangered, threatened, and rare species.



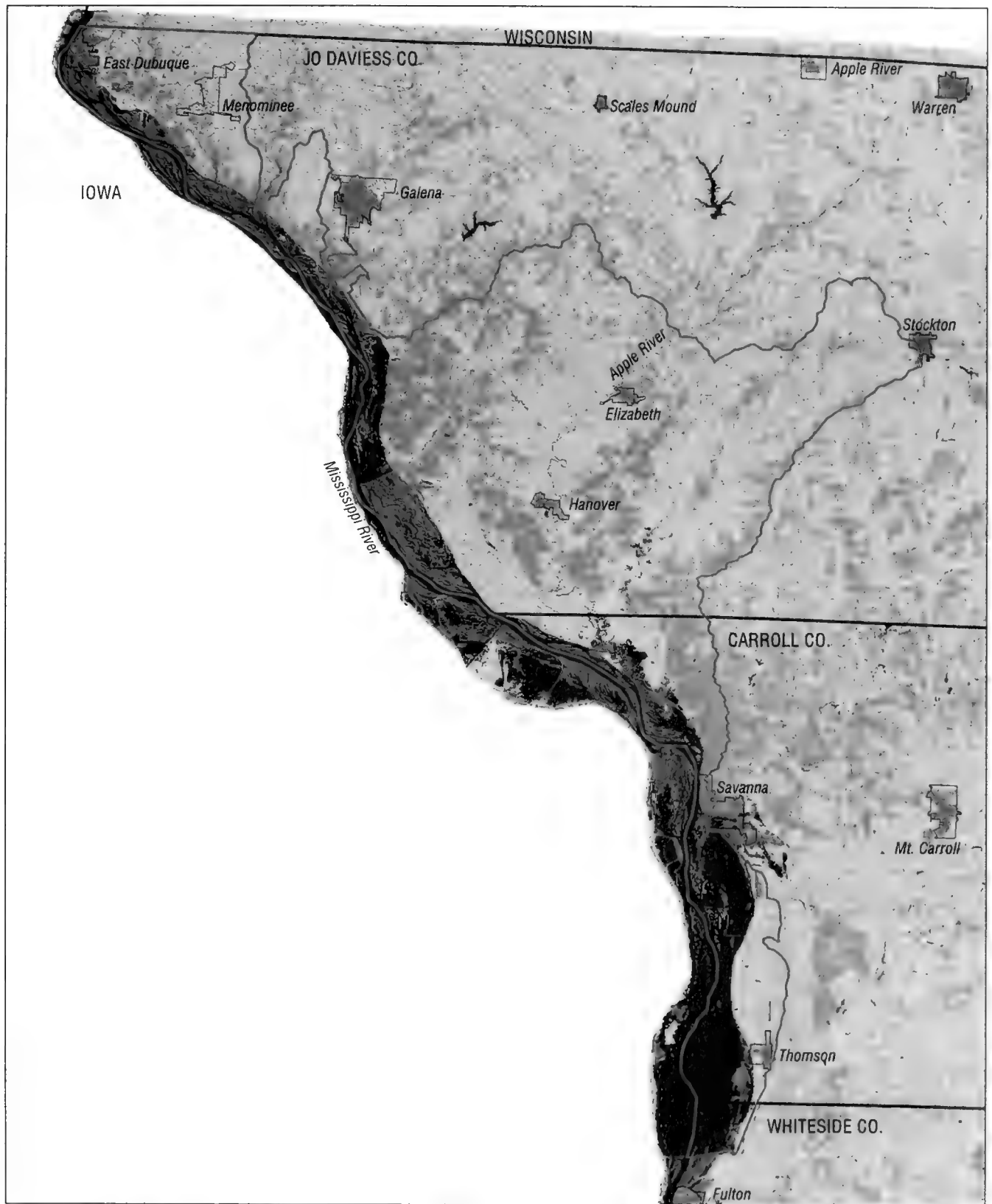
## Driftless Area

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

5 Miles





## Driftless Area



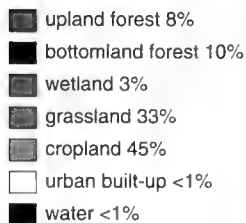
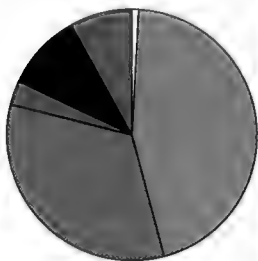
5 Miles



**Size:**  
15,144 acres  
23.7 square miles

**Location:**  
North-central  
Illinois bordering  
Wisconsin;  
Winnebago County.

Landcover at a Glance



## SUGAR RIVER

*The Sugar River RRA is characterized by a wide, wooded riparian corridor of floodplain forest and upland woods. It is the smallest RRA. The Sugar River area is along an important bird migration route and provides habitat for several unusual amphibians and reptiles.*

**LANDCOVER** ♦ The predominant landcover type is cropland (45%), followed by grassland (33%). This site has the second highest percentage of grasslands among the RRAs. The site is 18.5% wooded (8% upland and 10.5% bottomland forest). The percentages of bottomland woods and nonforested wetlands are relatively high, but the total acreages are low, reflecting the site's small size.

**NATURAL AREAS** ♦ The Sugar River Natural Area occupies 20% of this RRA. A small prairie is the only other Natural Area in this RRA.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ The Sugar River RRA has 4.5 miles of biologically significant streams.

**HERITAGE SITES** ♦ Twenty-four Heritage Sites occur in this RRA. There are three significant community types, 12 plant species, and four animal species.

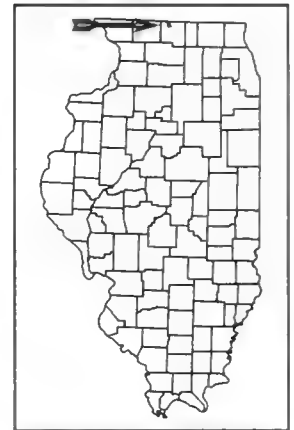
**STATE AND FEDERAL LAND** ♦ There is no state or federal land in this RRA.

**NATURE PRESERVES** ♦ There are two Nature Preserves in this site. Natural features include bluffs, sand savanna, and prairie.

**NATURAL DIVISIONS** ♦ This site lies in the Rock River Hill Country (84%) and Northeastern Morainal (16%) Divisions.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |        |
|---|--------|
| Total Acreage                           | 15,144 |
| Natural Areas                           |        |
| Acreage                                 | 2,993  |
| Number                                  | 2      |
| Biologically Significant Stream Mileage | 4.5    |
| Natural Heritage Sites                  | 24     |
| State Land                              |        |
| State Parks                             | 0      |
| State Conservation Areas                | 0      |
| State Forests                           | 0      |
| State Fish & Wildlife Areas             | 0      |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |
| Federal Land                            |        |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |



| LANDCOVER           | <u>Acreage</u> | <u>% of RRA</u> |
|---------------------|----------------|-----------------|
| Upland forest       | 1,208.87       | 7.98            |
| Bottomland forest   | 1,581.98       | 10.45           |
| Wetland-nonforested | 424.10         | 2.80            |
| Grassland           | 4,979.97       | 32.88           |
| Cropland            | 6,803.81       | 44.92           |
| Urban/Built-up      | 16.86          | 0.11            |
| Water               | <u>129.46</u>  | <u>0.85</u>     |
| TOTAL               | 15,145.05      | 99.99           |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                           | <u>Acres</u> |
|---------------------------|--------------|
| Shirland Railroad Prairie | 4            |
| Sugar River               | 2,989        |

## BIOLOGICALLY SIGNIFICANT STREAMS

|                          | <u>Miles</u> |
|--------------------------|--------------|
| Sugar River, Otter Creek | 4.5          |

## NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Lake                              | 1                  | 1                    |
| Prairie                           | 2                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 4                  | 3                    |
| Mammal                            | 1                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 11                 | 7                    |
| Plant-Monocot                     | 2                  | 2                    |
| Plant-Fern/Fern Ally              | 3                  | 3                    |
| Geological Feature                |                    |                      |
| Other                             |                    |                      |

## STATE AND FEDERAL LAND

|                               | <u>Acres</u> |
|-------------------------------|--------------|
| State Parks                   | 0            |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas | 0            |
| Federal Land                  | 0            |

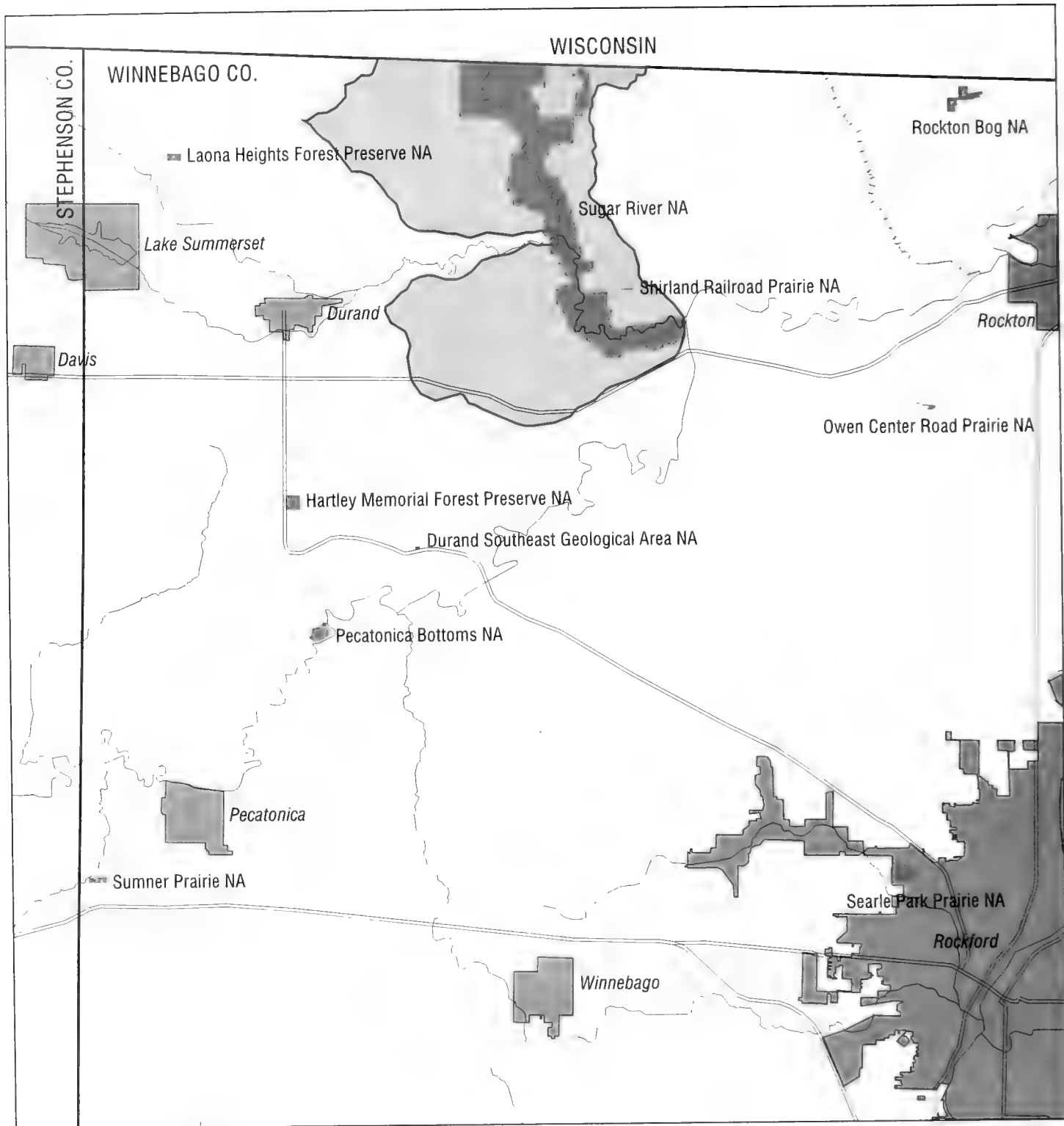
## ILLINOIS NATURE PRESERVES

|                        | <u>Acres</u> |
|------------------------|--------------|
| Colored Sands Bluff    | 56           |
| Sugar River Alder Site | 167          |

## NATURAL DIVISIONS

|                         | <u>Acres</u>  | <u>% of</u> | <u>% of</u>     |
|-------------------------|---------------|-------------|-----------------|
|                         | <u>in RRA</u> | <u>RRA</u>  | <u>Division</u> |
| Rock River Hill Country | 12,675        | 83.7        | 0.8             |
| Northeastern Morainal   | 2,470         | 16.3        | 0.1             |

Sand deposited by the wind after the last glaciation formed dunes and ridges along the Sugar River. The dunes and ridges were eventually stabilized by forest and prairie vegetation. Sugar River is a migration route for birds; over 150 species have been banded at the bird-banding station in Colored Sands Bluff Nature Preserve.



## Sugar River

- Natural Area
- Town
- State Land
- Federal Land

- Stream
- Significant Stream
- Highway
- County

2 Miles







## Sugar River

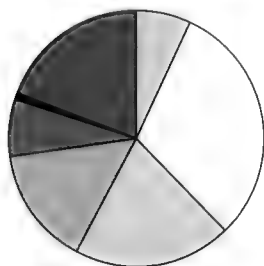


2 Miles

**Size:**  
285,844 acres  
447 square miles

**Location:**  
Northeastern  
Illinois; Lake,  
McHenry, Cook,  
and Kane counties.

Landcover at a Glance



- upland forest 19%
- bottomland forest 1%
- wetland 7%
- grassland 15%
- cropland 20%
- urban built-up 30%
- water 7%

## CHAIN O' LAKES - FOX RIVER

*The Chain O' Lakes-Fox River RRA encompasses the area of most recent glaciation in Illinois. Significant natural features in this poorly drained area include glacial landforms, natural lakes, and wetlands. Many wetland types are found in this RRA, such as bogs, fens, seeps, and shallow and deep marshes. Some rare species and community types are limited in their distribution to this area of the state. Urban expansion from the Chicago metropolitan region continues to put severe pressure on the natural resources in this region.*



**LANDCOVER** ♦ The predominant landcover in this RRA is urban/built-up (30%). This site has the highest urban/built-up acreage and ranks fifth in percentage of urban-built up area. Twenty percent of this site is wooded and 20% is cropland. Chain O' Lakes - Fox River has the most nonforested wetlands acreage (20,839 acres) and ranks first for percentage of nonforested wetlands among the RRAs.

**NATURAL AREAS** ♦ This site has the second highest number of Natural Areas. The 72 Natural Areas include bogs, fens, seeps, marshes, sedge meadows, natural lakes, glacial features, and prairies.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ The Chain O' Lakes - Fox River RRA has 15 BSS locations, 14 of which are lakes.

**HERITAGE SITES** ♦ This site has 476 Heritage occurrences, the highest number among the RRAs. There are 23 significant community types, 73 plants species, 23 animal species, and five rookeries in this area.

**STATE AND FEDERAL LAND** ♦ State land in this RRA consists of two state parks: Chain O' Lakes and McHenry Dam & Lake Defiance. There is no federal land in this site.

**NATURE PRESERVES** ♦ There are 34 Nature Preserves within this RRA. Principal natural features are bogs, fens, marshes, glacial lakes, sedge meadows, and prairies.

**NATURAL DIVISIONS** ♦ This site is entirely within the Northeastern Morainal Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 285,844 |
| Natural Areas                           |         |
| Acreage                                 | 9,442   |
| Number                                  | 72      |
| Biologically Significant Stream Mileage | 35.6    |
| Natural Heritage Sites                  | 476     |
| State Land                              |         |
| State Parks                             | 2       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |

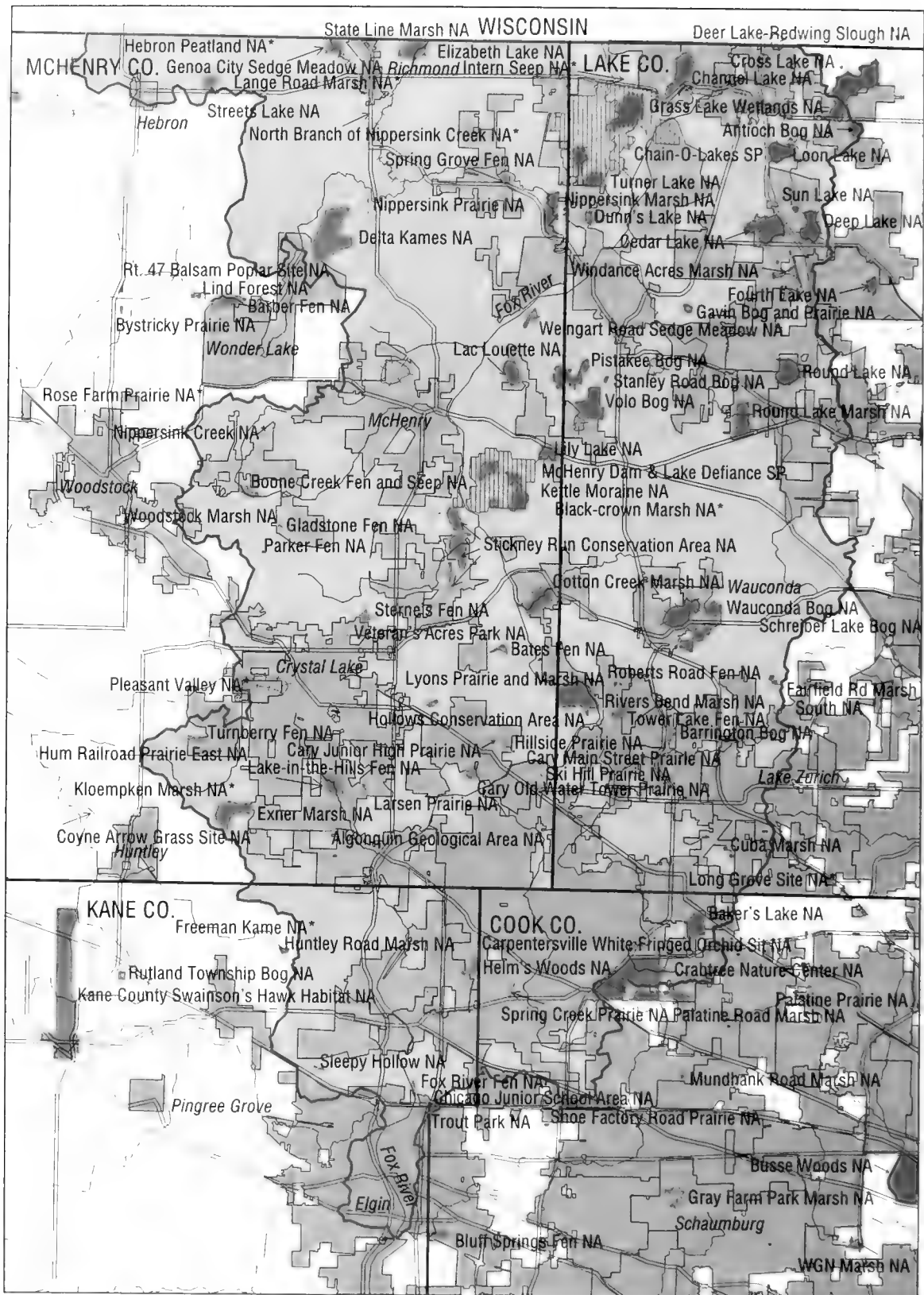
|                   |       |
|-------------------|-------|
| Acreage           | 5,338 |
| Percentage of RRA | 1.9   |
| Federal Land      | .     |
| Acreage           | 0     |
| Percentage of RRA | 0.0   |

| LANDCOVER           | <u>Acres</u>     | <u>% of RRA</u> |
|---------------------|------------------|-----------------|
| Upland forest       | 53,844.17        | 18.84           |
| Bottomland forest   | 3,548.32         | 1.24            |
| Wetland-nonforested | 20,839.32        | 7.29            |
| Grassland           | 43,652.61        | 15.27           |
| Cropland            | 58,220.21        | 20.37           |
| Urban/Built-up      | 86,778.57        | 30.36           |
| Water               | <u>18,956.48</u> | <u>6.63</u>     |
| TOTAL               | 285,839.68       | 100.00          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|   | <u>Acres</u> |
|---|--------------|
| Algonquin Geological Area                 | 10           |
| Antioch Bog                               | 85           |
| Baker's Lake                              | 207          |
| Barrington Bog                            | 46           |
| Bates Fen                                 | 50           |
| Black-crown Marsh                         | *            |
| Boone Creek Fen and Seep                  | 71           |
| Carpentersville White Fringed Orchid Site | 1            |
| Cary Junior High Prairie                  | 7            |
| Cary Main Street Prairie                  | 4            |
| Cary Old Water Tower Prairie              | 50           |
| Cedar Lake                                | 344          |
| Channel Lake                              | 320          |
| Chicago Junior School Area                | 23           |
| Cotton Creek Marsh                        | 294          |
| Crabtree Nature Center                    | 601          |
| Cross Lake                                | 22           |
| Cuba Marsh                                | 32           |
| Deep Lake                                 | 225          |
| Deer Lake--Redwing Slough                 | 129          |
| Delta Kames                               | 699          |
| Dunn's Lake                               | 62           |
| Elizabeth Lake                            | 229          |
| Exner Marsh                               | 299          |
| Fairfield Road Marsh South                | 34           |
| Fox River Fen                             | 27           |
| Gavin Bog and Prairie                     | 41           |
| Genoa City Sedge Meadow                   | 126          |
| Gladstone Fen                             | 11           |
| Grass Lake Wetlands                       | 557          |
| Hebron Peatland                           | *            |
| Helm's Woods                              | 83           |
| Hillside Prairie                          | 17           |
| Hollows Conservation Area                 | 37           |
| Intern Seep                               | *            |
| Kettle Moraine                            | 443          |
| Lac Louette                               | 167          |

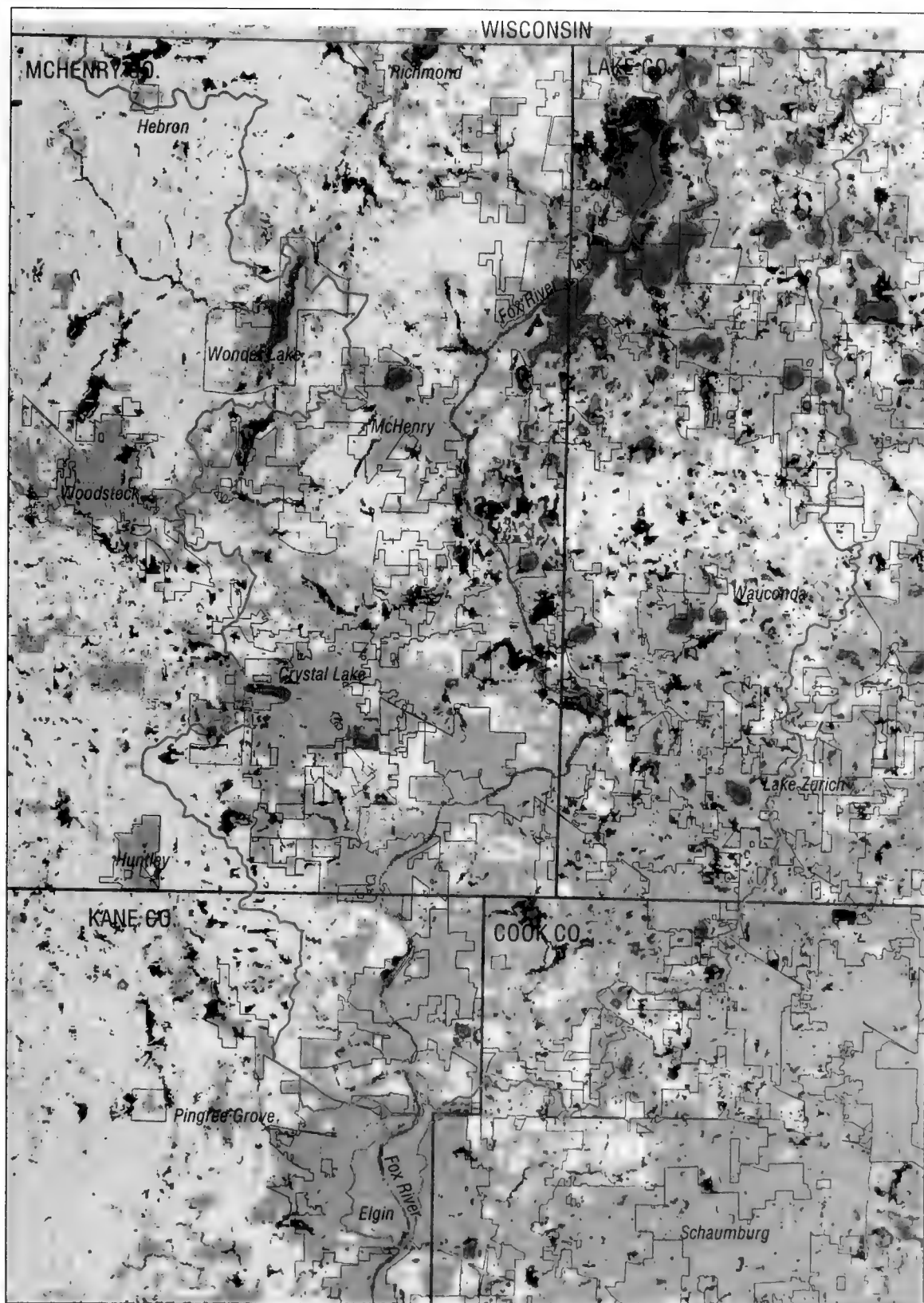
**B**ecause of its glacial history, wetlands are particularly concentrated in northeastern Illinois. A variety of wetland types, such as marshes, sedge meadows, fens, and bogs, support a unique and sometimes rare flora and fauna. Bogs in Illinois are limited to glacial depressions in the northeastern part of the state. Acidic conditions created by the lack of drainage and accumulation of layers of peat support uniquely adapted flora, such as leatherleaf, blueberry, cranberry, ferns, orchids, pitcher-plant, sundew, poison sumac, and tamarack.



## Chain O Lakes-Fox River

4 Miles





Chain O Lakes-Fox River



4 Miles

**V**olo Bog is an exceptional example of a bog where all successional stages are present. The open water center is surrounded by a floating mat of sphagnum moss. A variety of grasses, reeds, and flowering plants grow on the sphagnum mat. Farther from the open water shrubs and trees, such as the tamarack, grow on the more consolidated peat.

ILLINOIS NATURAL AREAS INVENTORY SITES (*continued*)

|                                  | <u>Acres</u> |
|----------------------------------|--------------|
| Lake-in-the-Hills Fen            | 147          |
| Lange Road Marsh                 | *            |
| Larsen Prairie                   | 20           |
| Lily Lake                        | 88           |
| Loon Lake                        | 166          |
| Lyons Prairie and Marsh          | 451          |
| Nippersink Marsh                 | 270          |
| Nippersink Prairie               | 22           |
| North Branch of Nippersink Creek | *            |
| Parker Fen                       | 8            |
| Pistakee Bog                     | 291          |
| Rivers Bend Marsh                | 5            |
| Roberts Road Fen                 | 24           |
| Round Lake                       | 227          |
| Round Lake Marsh                 | 222          |
| Schreiber Lake Bog               | *            |
| Ski Hill Prairie                 | 5            |
| Sleepy Hollow                    | 22           |
| Spring Creek Prairie             | 18           |
| Spring Grove Fen                 | 61           |
| Stanley Road Bog                 | 16           |
| State Line Marsh                 | 15           |
| Sterne's Fen                     | 51           |
| Stickney Run Conservation Area   | 445          |
| Streets Lake                     | 88           |
| Sun Lake                         | 25           |
| Tower Lake Fen                   | 74           |
| Trout Park                       | 26           |
| Turnberry Fen                    | 40           |
| Turner Lake                      | 140          |
| Veteran's Acres Park             | 5            |
| Volo Bog                         | 324          |
| Wauconda Bog                     | 623          |
| Weingart Road Sedge Meadow       | 73           |
| Windance Acres Marsh             | 93           |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|   | <u>Miles</u> |
|---|--------------|
| Bangs Lake  | 3.3          |
| Cedar Lake  | 3.1          |
| Cross Lake  | 0.5          |
| Crystal Lake                                      | 3.1          |
| Deep Lake   | 2.6          |
| East Loon Lake                                    | 2.4          |
| Grays Lake  | 1.3          |
| Lily Lake   | 1.7          |
| McCullom Lake                                     | 2.3          |
| N. Br. Nippersink Cr., WI border to Nippersink Cr | 7.1          |
| Round Lake  | 2.3          |
| Sullivan Lake                                     | 1.4          |
| Turner Lake                                       | 1.1          |
| West Loon Lake                                    | 1.9          |
| Wooster Lake                                      | 1.6          |

## NATURAL HERITAGE CATEGORIES

| Communities                              | <u>Occurrences</u> | <u>Types/Species</u> |
|--|--------------------|----------------------|
| Lake                                     | 11                 | 2                    |
| Wetland                                  | 65                 | 12                   |
| Forest                                   | 2                  | 2                    |
| Savanna                                  | 2                  | 2                    |
| Prairie                                  | 10                 | 5                    |
| Threatened and Endangered Animals        |                    |                      |
| Bird                                     | 84                 | 15                   |
| Fish                                     | 33                 | 5                    |
| Insect                                   | 2                  | 2                    |
| Mollusk                                  | 2                  | 1                    |
| Threatened and Endangered Plants         |                    |                      |
| Plant-Dicot                              | 117                | 32                   |
| Plant-Gymnosperm                         | 9                  | 2                    |
| Plant-Monocot                            | 133                | 39                   |
| Geological Feature                       |                    |                      |
| Geological Feature                       | 1                  | 1                    |
| Other                                    |                    |                      |
| Rookery                                  | 5                  | 1                    |
| STATE AND FEDERAL LAND                   |                    |                      |
| State Parks                              |                    | <u>Acres</u>         |
| Chain-O-Lakes                            |                    | 3,669                |
| McHenry Dam & Lake Defiance              |                    | 1,669                |
| State Conservation Areas                 |                    | 0                    |
| State Forests                            |                    | 0                    |
| State Fish and Wildlife Areas            |                    | 0                    |
| Federal Land                             |                    | 0                    |
| ILLINOIS NATURE PRESERVES                |                    | <u>Acres</u>         |
| Bakers Lake                              |                    | 170                  |
| Barrington Bog                           |                    | 46                   |
| Bates Fen                                |                    | 229                  |
| Carl&Claire Marie Sands-Main St. Prairie |                    | 75                   |
| Cary Prairie                             |                    | 7                    |
| Cedar Lake Bog                           |                    | 25                   |
| Cotton Creek Marsh                       |                    | 252                  |
| Elizabeth Lake                           |                    | 99                   |
| Exner Marsh                              |                    | 115                  |
| Farm Trails North                        |                    | 23                   |
| Fox River Fen                            |                    | 8                    |
| Gavin Bog and Prairie                    |                    | 103                  |
| Glacial Park                             |                    | 446                  |
| Gladstone Fen                            |                    | 4                    |
| Helm Woods                               |                    | 106                  |
| Julia M. & Royce L. Parker Fen           |                    | 11                   |
| Kemper Park                              |                    | 13                   |
| Kettle Moraine                           |                    | 281                  |
| Kishwaukee Fen                           |                    | 50                   |
| Lake-in-the-Hills Fen                    |                    | 184                  |
| Lyons Prairie and Marsh                  |                    | 237                  |
| Oakwood Hills Fen                        |                    | 11                   |
| Pistakee Bog                             |                    | 87                   |

**G**lacial landforms are common in the northeastern part of Illinois, the most recently glaciated region of the state. Rolling topography is the result of moraines (long ridges of glacial debris) and kames (conical mounds of glacial debris). Kettle holes and other depressions scooped out by the glaciers created an abundant variety of wetlands. Many of these features can be seen at Glacial Park in McHenry County.

**P**itcher-plants and sundews are carnivorous plants found in bogs, fens, and on calcareous floating mats in northeastern Illinois. Insects fall into the rolled tube of the pitcher-plant and are digested by enzymes. Sundews actively trap insects with sticky droplets secreted on the tips of hairs; the hairs slowly curl around the prey, which is digested and absorbed by the plant.

| ILLINOIS NATURE PRESERVES (continued) |               |            | Acres           |
|---------------------------------------|---------------|------------|-----------------|
| Spring Grove Fen                      |               |            | 30              |
| Spring Lake                           |               |            | 535             |
| Sterne's Fen                          |               |            | 196             |
| Tower Lakes Fen                       |               |            | 8               |
| Trout Park                            |               |            | 18              |
| Turner Lake Fen                       |               |            | 86              |
| Volo Bog                              |               |            | 151             |
| Wagner Fen                            |               |            | 46              |
| Wauconda Bog                          |               |            | 67              |
| Weingart Road Sedge Meadow            |               |            | 47              |
| Wingate Prairie                       |               |            | 64              |
| NATURAL DIVISIONS                     | Acres         | % of       | % of            |
|                                       | <u>in RRA</u> | <u>RRR</u> | <u>Division</u> |
| Northeastern Morainal                 | 285,845       | 100.0      | 11.6            |







## ILLINOIS BEACH

*Illinois Beach RRA is one of the most ecologically rich and unique areas in Illinois. The diversity of habitats created because of its location on the shores of Lake Michigan support a wide variety of plants and animals. Significant and unusual topographic features include beaches, ridges and swales, and dunes. The area is an important migratory route for birds. This site's boundaries include urbanized areas of the Chicago metropolitan region.*

**LANDCOVER** ♦ The predominant landcover in Illinois Beach RRA is urban/built-up (63%), followed by upland woods (15%). Illinois Beach RRA has the second highest percentage of urban/built-up acreage among the RRAs. This RRA ranks third in percentage of nonforested wetlands.

**NATURAL AREAS** ♦ There are 15 Natural Areas, covering almost 9% of the site. Illinois Beach and Illinois Dunes North account for three-fourths of the total Natural Area acreage.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ This site has no BSS streams.

**HERITAGE SITES** ♦ Illinois Beach RRA has 155 Heritage points. Twenty-one significant community types occur in this RRA, several of which are primary communities—foredunes, beaches, and bluffs—specific to this part of the state. The Heritage database lists 47 plant species, 17 animal species, and a peregrine falcon hacking site for this RRA.

**STATE AND FEDERAL LAND** ♦ State land consists of Illinois Beach State Park. Fort Sheridan is currently federally owned.

**NATURE PRESERVES** ♦ There are three Nature Preserves in this site. Many unique lakefront communities such as lakeshore, foredune, sand prairie, sand savanna, fen, panne, sedge meadow, marsh, and pond are found in these Nature Preserves.

**NATURAL DIVISION** ♦ Illinois Beach RRA is in the Northeastern Morainal Natural Division.

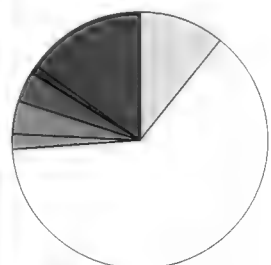
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |        |
|---|--------|
| Total Acreage                           | 49,172 |
| Natural Areas                           |        |
| Acreage                                 | 4,252  |
| Number                                  | 15     |
| Biologically Significant Stream Mileage | 0      |
| Natural Heritage Sites                  | 155    |
| State Land                              |        |
| State Parks                             | 1      |
| State Conservation Areas                | 0      |
| State Forests                           | 0      |
| State Fish & Wildlife Areas             | 0      |

**Size:**  
49,172 acres  
77 square miles

**Location:**  
Northeastern Illinois  
on Lake Michigan;  
Lake and Cook  
counties

Landcover at a Glance



- upland forest 15%
- bottomland forest 1%
- wetland 4%
- grassland 4%
- cropland 2%
- urban built-up 63%
- water 11%

**B**ordering the edge of Lake Michigan in Lake County is a landscape unique in the state. A long, narrow band of beaches, sand dunes, swales, marshes, sand prairies, savannas, and oak forests occurs here, the result of the gradual lowering of Lake Michigan. Illinois Beach is one of the most biologically diverse areas in the state; more than 650 species of plants have been identified from this area.

State Land (*continued*)

|                   |       |
|-------------------|-------|
| Acreage           | 3,092 |
| Percentage of RRA | 6.3   |
| Federal Land      |       |
| Acreage           | 726   |
| Percentage of RRA | 1.5   |

| LANDCOVER           | <u>Acres</u>    | <u>% of RRA</u> |
|---------------------|-----------------|-----------------|
| Upland forest       | 7,134.37        | 14.51           |
| Bottomland forest   | 504.58          | 1.03            |
| Wetland-nonforested | 2,180.29        | 4.43            |
| Grassland           | 1,909.74        | 3.88            |
| Cropland            | 927.27          | 1.89            |
| Urban/Built-up      | 30,866.50       | 62.77           |
| Water               | <u>5,350.88</u> | <u>10.88</u>    |
| TOTAL               | 48,873.63       | 99.39           |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                            | <u>Acres</u> |
|----------------------------|--------------|
| Blair Woods                | 135          |
| Blodgett Bluff             | 5            |
| Crabtree Farm Woods        | 37           |
| Fort Sheridan Bluff        | 24           |
| Fort Sheridan Site         | 2            |
| Glencoe Balsam Poplar Site | 6            |
| Hubbard Woods Site         | 2            |
| Illinois Beach             | 2,013        |
| Illinois Dunes North       | 1,222        |
| Lake Bluff Woods           | 34           |
| Lyons Woods                | *            |
| McCormick Nature Preserve  | 135          |
| Ravinia Bluff              | 4            |
| Tangley Oaks Woods         | 87           |
| Waukegan Beach             | 547          |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

None

## NATURAL HERITAGE CATEGORIES

|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Lake                              | 2                  | 2                    |
| Wetland                           | 9                  | 5                    |
| Forest                            | 8                  | 2                    |
| Savanna                           | 2                  | 2                    |
| Prairie                           | 11                 | 7                    |
| Primary                           | 7                  | 3                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 11                 | 9                    |
| Fish                              | 4                  | 2                    |
| Reptile                           | 2                  | 2                    |
| Insect                            | 4                  | 4                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 46                 | 22                   |
| Plant-Gymnosperm                  | 16                 | 4                    |
| Plant-Monocot                     | 1632               | 21                   |

## Geological Feature

## Other

Hacking Site Peregrine Falcon

1

1

## STATE AND FEDERAL LAND

## State Parks

Illinois Beach

3,092

## State Conservation Areas

0

## State Forests

0

## State Fish and Wildlife Areas

0

## Federal Land

Fort Sheridan

726

## ILLINOIS NATURE PRESERVES

Acres

Illinois Beach

1,095

North Dunes

242

Spring Bluff

214

## NATURAL DIVISIONS

Acres% of% ofin RRARRADivision

Northeastern Morainal

48,685

99.0

2.0

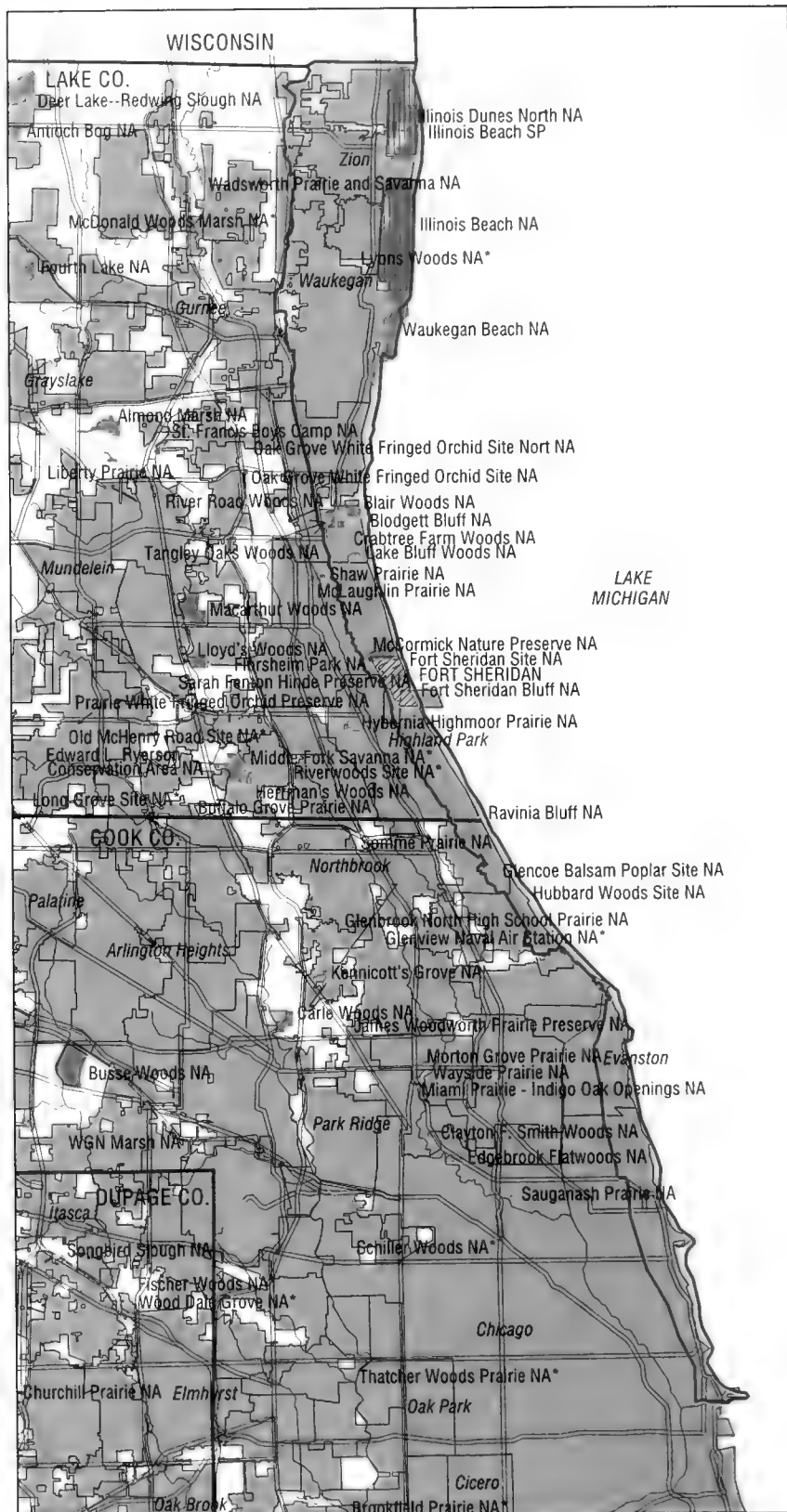
Major Water Bodies

487

1.0

.0

**M**icroclimates along the lakefront range from extremely dry beaches and sand dunes to the moist swales or sloughs between the sand ridges. In this relatively small area the flora ranges from the prickly pear cactus and creeping juniper to wetland plants and wildflowers such as orchids, wood lilies, gentians, and Indian paintbrushes.



## Illinois Beach



4 Miles





## Illinois Beach

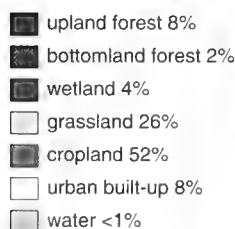
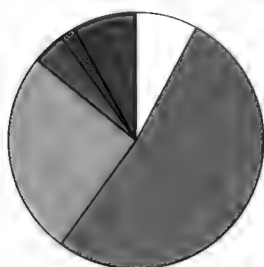


4 Miles

**Size:**  
64,386 acres  
101 square miles

**Location:**  
North-central  
Illinois; McHenry  
and Boone  
counties

**Landcover at a Glance**



## KISHWAUKEE RIVER

*The natural resources of the Kishwaukee River RRA are concentrated along the wooded corridor of the river. Originally savanna with many sloughs and marshes, the area is now primarily agricultural. This RRA drains to the Rock River. The Chain O' Lakes-Fox River RRA, which adjoins the Kishwaukee River RRA on the east, drains to the Fox River and ultimately the Illinois River.*



**LANDCOVER** ♦ This site is approximately half cropland and one-fourth grassland. Forest cover accounts for 11% of the area and is concentrated along the river. The Kishwaukee River RRA ranks fourth in percentage of nonforested wetlands.

**NATURAL AREAS** ♦ There are three Natural Areas in this RRA.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Fifteen miles of the Kishwaukee River are designated as high quality by BSS standards.

**HERITAGE SITES** ♦ The eight Heritage points in this RRA include two significant community types, two plant species, and four animal species.

**STATE AND FEDERAL LAND** ♦ There is no state or federal land in this RRA.

**NATURE PRESERVES** ♦ There are no Nature Preserves in this RRA.

**NATURAL DIVISIONS** ♦ This site lies entirely within the Northeastern Morainal Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |        |  |
|---|--------|--|
| Total Acreage                           | 64,386 |  |
| Natural Areas                           |        |  |
| Acreage                                 | 362    |  |
| Number                                  | 3      |  |
| Biologically Significant Stream Mileage | 15.0   |  |
| Natural Heritage Sites                  | 8      |  |
| State Land                              |        |  |
| State Parks                             | 0      |  |
| State Conservation Areas                | 0      |  |
| State Forests                           | 0      |  |
| State Fish & Wildlife Areas             | 0      |  |
| Acreage                                 | 0      |  |
| Percentage of RRA                       | 0.0    |  |
| Federal Land                            |        |  |
| Acreage                                 | 0      |  |
| Percentage of RRA                       | 0.0    |  |

| LANDCOVER           | <u>Acres</u> | <u>% of RRA</u> |
|---------------------|--------------|-----------------|
| Upland forest       | 5,264.98     | 8.18            |
| Bottomland forest   | 1,567.73     | 2.44            |
| Wetland-nonforested | 2,456.07     | 3.81            |
| Grassland           | 16,722.80    | 25.97           |

|                |               |             |
|----------------|---------------|-------------|
| Cropland       | 33,178.06     | 51.53       |
| Urban/Built-up | 4,935.01      | 7.67        |
| Water          | <u>258.51</u> | <u>0.40</u> |
| TOTAL          | 64,383.16     | 100.00      |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                           |              |
|---------------------------|--------------|
|                           | <u>Acres</u> |
| Hum Railroad Prairie West | 137          |
| Kishwaukee River          | 224          |
| Pleasant Valley           | *            |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|                  |              |
|------------------|--------------|
|                  | <u>Miles</u> |
| Kishwaukee River | 15.0         |
| Rush Creek       | 0.0          |

## NATURAL HERITAGE CATEGORIES

|                                   |                    |                      |
|-----------------------------------|--------------------|----------------------|
| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
| Prairie                           | 2                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 2                  | 2                    |
| Fish                              | 1                  | 1                    |
| Mammal                            | 1                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 2                  | 2                    |
| Geological Feature                |                    |                      |
| Other                             |                    |                      |

## STATE AND FEDERAL LAND

|                               |              |
|-------------------------------|--------------|
|                               | <u>Acres</u> |
| State Parks                   | 0            |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas | 0            |
| Federal Land                  | 0            |

## ILLINOIS NATURE PRESERVES

None

## NATURAL DIVISIONS

|                        |               |             |                 |
|------------------------|---------------|-------------|-----------------|
|                        | <u>Acres</u>  | <u>% of</u> | <u>% of</u>     |
|                        | <u>in RRA</u> | <u>RRR</u>  | <u>Division</u> |
| Northeastern Morainial | 64,387        | 100.0       | 2.6             |

**F**ifteen miles of the Kishwaukee River is identified in the Biologically Significant Illinois Streams Inventory. The clear water of this medium-sized stream with its gravel, sand, and cobble substrate supports a diverse mussel fauna.

# WISCONSIN

BOONE CO.

MCHENRY CO.

Hebron Peatland NA\*

Lange Road Marsh NA\*

Hebron

Streets Lake NA

Alden Sedge Meadow NA

Piscasaw Creek NA\*

Harvard

Harvard East Geological Area NA

Beck Woods Conservation Area NA

Harvard Geological Area NA

Harvard Savanna NA

Rt. 47 Balsam Poplar Site NA

Lind Forest NA

Barber Fen NA

Bystricky Prairie NA

Wonder Lake

Deep Cut Marsh Wildlife Refuge NA

Rose Farm Prairie NA\*

Nippersink Creek NA\*

Woodstock

Bull Valley

Boone Creek Fen and Seep NA

Woodstock Marsh NA

Parker Fen NA

Kishwaukee River NA

Hum Railroad Prairie West NA

Marengo

Hum Railroad Prairie East NA

Pleasant Valley NA\*

Lakewood

Turnberry Fen NA

Kloempken Marsh NA\*

Coyne Arrow

Grass Site NA

Exner Marsh NA

Huntley

DEKALB CO.

KANE CO.

Kane Co. Swainson's Hawk Habitat NA





Freeman-Kame NA\*

Rutland Township Bog NA

Kishwaukee River

3 Miles

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County





WISCONSIN

BOONE CO.

MCHENRY CO.

Hebron

Harvard

Capron

Wood Lake

Woodstock

Bull Valley

Marengo

Union

Lakewood

Huntley

DEKALB CO.

KANE CO.

Kishwaukee River

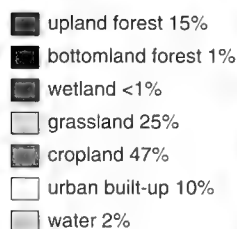
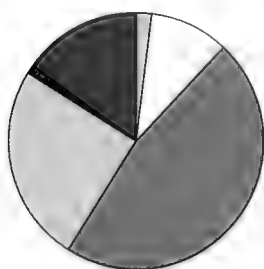
3 Miles



**Size:**  
206,215 acres  
322 square miles

**Location:**  
North-central  
Illinois; Boone,  
Lee, Ogle, and  
Winnebago  
counties

**Landcover at a Glance**



## ROCK RIVER

*The ecological core of this RRA is the Rock River corridor from Rockford to Dixon. Significant features include upland and floodplain forests, seeps, springs, prairies, aquatic systems, cliffs, and bedrock outcroppings. Some of the habitats support relict boreal plants which are more normally found farther north in Wisconsin and Minnesota and in the Appalachian Mountains. Principal landcover in the area is cropland and pasture; forest cover is concentrated along the river. This site is a pilot area for efforts by the Illinois Department of Natural Resources to implement its local partnership program.*



**LANDCOVER** ♦ Cropland is the predominant landcover (47%), followed by grassland (25%) and upland woods (15%). This RRA ranks 15th in percentage of upland woods. The percentages of nonforested wetland and bottomland forest are low compared to the other RRAs (24th and 28th, respectively).

**NATURAL AREAS** ♦ The 20 Natural Areas range from less than an acre (Stronghold Hill Prairie) to 2,311 acres (Lowden-Miller Forest). Nachusa Grasslands is the second largest Natural Area with 1,583 acres.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ BSS designated streams are a nearly seven mile stretch of the Rock River and the entire length of the Kishwaukee River in this RRA.

**HERITAGE SITES** ♦ There are 101 Heritage occurrences consisting of seven significant community types, 32 plants species, eight animal species, and a rookery.

**STATE AND FEDERAL LAND** ♦ There are three state parks within the site and one state forest.

**NATURE PRESERVES** ♦ Four Nature Preserves are present and contain such significant features as upland forest, sandstone cliffs, gorges, and prairie.

**NATURAL DIVISIONS** ♦ This RRA is within the Rock River Hill County (84%), Northeastern Morainal (11%), and Grand Prairie (5%) Natural Divisions. This site has the largest acreage of the Rock River Hill Country division among the RRAs.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 206,215 |
| Natural Areas                           |         |
| Acreage                                 | 5,416   |
| Number                                  | 20      |
| Biologically Significant Stream Mileage | 17.5    |
| Natural Heritage Sites                  | 101     |
| State Land                              |         |
| State Parks                             | 3       |
| State Conservation Areas                | 0       |
| State Forests                           | 1       |
| State Fish & Wildlife Areas             | 0       |

|                   |       |
|-------------------|-------|
| Acreage           | 4,706 |
| Percentage of RRA | 2.3   |
| Federal Land      |       |
| Acreage           | 0     |
| Percentage of RRA | 0.0   |

| LANDCOVER           | <u>Acres</u>    | <u>% of RRA</u> |
|---------------------|-----------------|-----------------|
| Upland forest       | 30,458.06       | 14.77           |
| Bottomland forest   | 2,552.41        | 1.24            |
| Wetland-nonforested | 608.75          | 0.30            |
| Grassland           | 50,586.08       | 24.53           |
| Cropland            | 96,519.14       | 46.81           |
| Urban/Built-up      | 21,146.41       | 10.25           |
| Water               | <u>4,340.92</u> | <u>2.11</u>     |
| TOTAL               | 206,211.77      | 100.01          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                                    | <u>Acres</u> |
|------------------------------------|--------------|
| Babson Hollow                      | 4            |
| Bell Bowl Prairie                  | 21           |
| Byron Dragway Prairie              | 16           |
| Castle Rock                        | 644          |
| Commonwealth Edison Prairie        | 147          |
| Fearer Tract At Castle Rock        | 145          |
| Franklin Creek                     | 148          |
| Grand Detour Yellow Birch Site     | 11           |
| Jarrett Prairie                    | 140          |
| Kishwaukee River                   | 129          |
| Lowden Memorial State Park         | 22           |
| Lowden-Miller Forest               | 2,311        |
| Mount Morris East Geological Area  | 10           |
| Nachusa Grasslands                 | 1,583        |
| Oregon Geological Area             | 7            |
| Rock River Yellow Birch Stand      | 7            |
| Silver Creek Prairie               | 4            |
| Sinnissippi Cornus Canadensis Site | 2            |
| Stronghold Hill Prairie            | <1           |
| White Pines Forest State Park      | 64           |

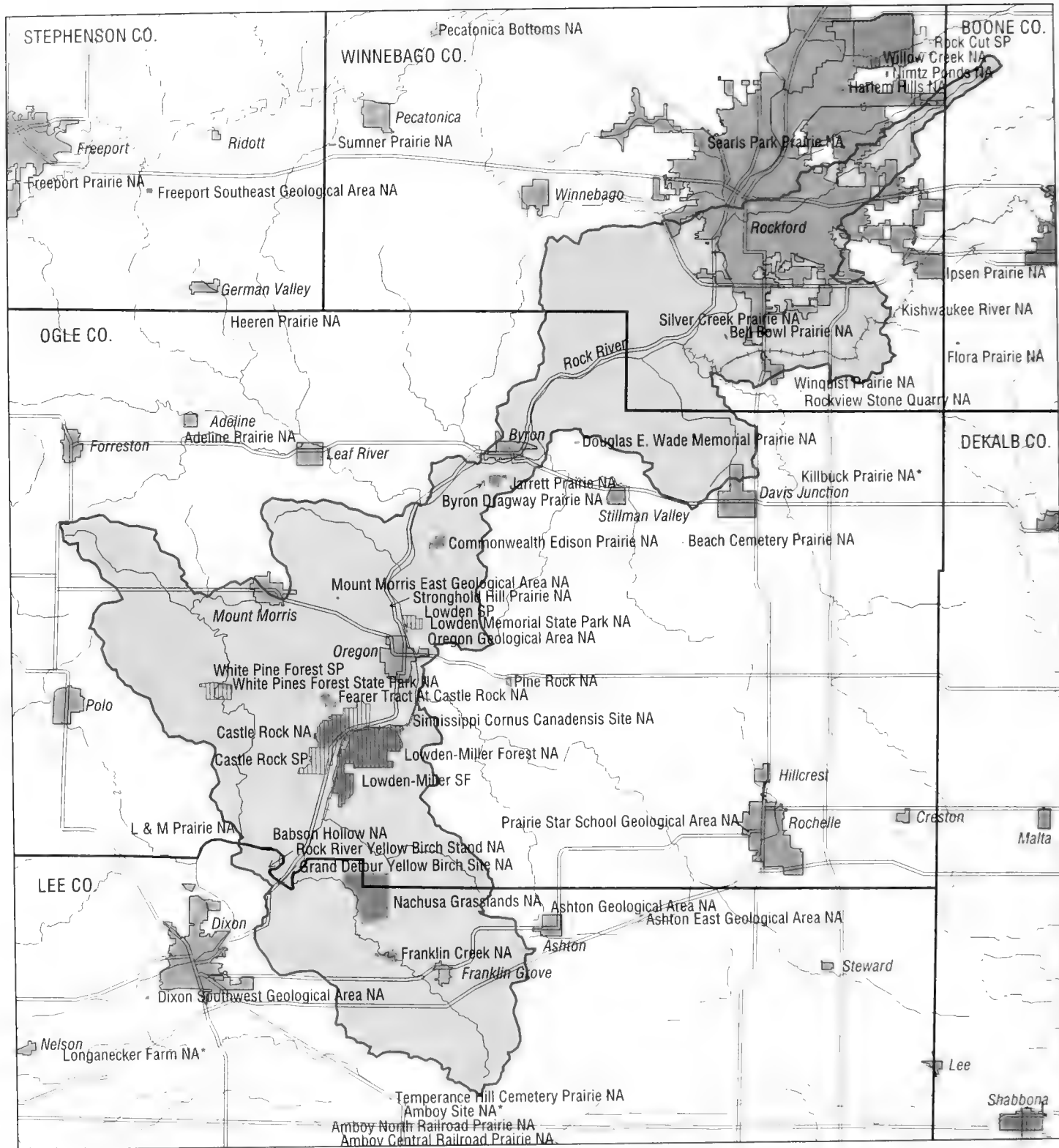
## BIOLOGICALLY SIGNIFICANT STREAMS

|  | <u>Miles</u> |
|--|--------------|
| Kishwaukee River                       | 10.7         |
| Rock River, Honey Creek to Clear Creek | 6.8          |

## NATURAL HERITAGE CATEGORIES

|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Wetland                           | 3                  | 2                    |
| Communities                       |                    |                      |
| Forest                            | 4                  | 2                    |
| Prairie                           | 3                  | 3                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 9                  | 6                    |
| Mammal                            | 1                  | 1                    |
| Reptile                           | 2                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 47                 | 17                   |
| Plant-Monocot                     | 11                 | 7                    |
| Plant-Fern/Fern Ally              | 15                 | 8                    |

**C**astle Rock State Park is named for a large outcropping of sandstone along the Rock River. Although this type of sandstone (St. Peter) underlies most of the state, it is exposed at the surface in only a few places. A diversity of natural communities is found here, including ravine, upland and floodplain forest, prairie, stream, and sandstone outcrops. Many plant associations of more northern climates exist in the deep ravines. Relict boreal plants such as native white pine, bunchberry, hairy woodrush, round-leaved shinleaf, and wild sarsaparilla are found in shaded areas with acidic sandy soil.



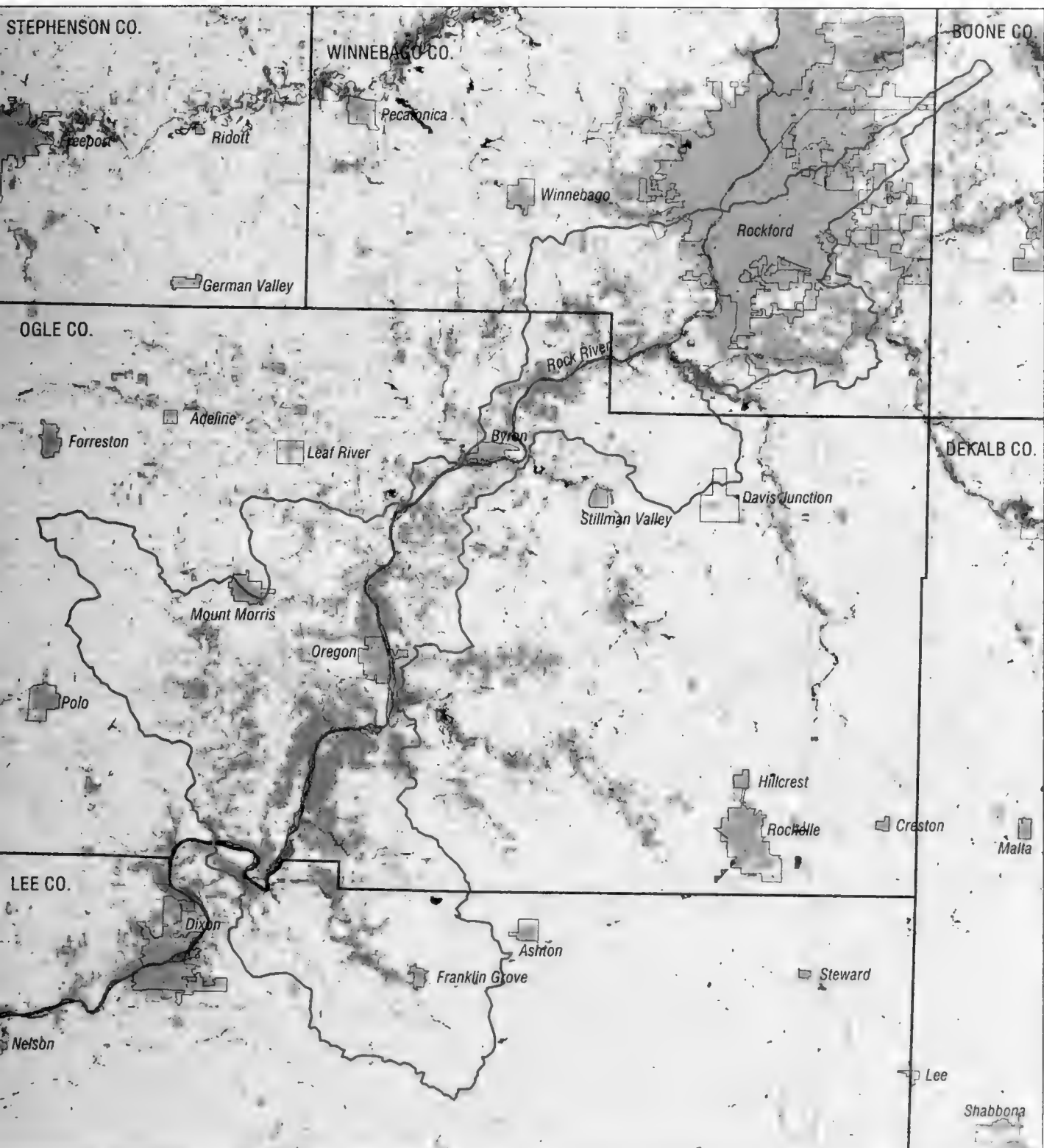
## Rock River

- Natural Area
- Town
- State Land
- Federal Land

- Stream
- Significant Stream
- Highway
- County

5 Miles





## Rock River



5 Miles

**T**he largest remnant of native white pines in Illinois is found at White Pines State Park. Local citizens began petitioning for the area to be saved as early as 1903. The mixed hardwood-conifer forest is unique in Illinois.

| NATURAL HERITAGE CATEGORIES <i>(continued)</i> |         | <u>Occurrences</u> | <u>Types</u> |
|--|---------|--------------------|--------------|
| Geological Feature                             |         | 5                  | 1            |
| Other  |         |                    |              |
| Rookery  |         | 1                  | 1            |
| STATE AND FEDERAL LAND                         |         |                    |              |
| State Parks                                    |         |                    | <u>Acres</u> |
| Castle Rock                                    |         |                    | 1,793        |
| Lowden   |         |                    | 205          |
| White Pine Forest                              |         |                    | 397          |
| State Conservation Areas                       |         |                    | 0            |
| State Forests                                  |         |                    |              |
| Lowden-Miller                                  |         |                    | 2,311        |
| State Fish and Wildlife Areas                  |         |                    | 0            |
| Federal Land                                   |         |                    | 0            |
| ILLINOIS NATURE PRESERVES                      |         |                    | <u>Acres</u> |
| Franklin Creek                                 |         |                    | 100          |
| George B. Fell                                 |         |                    | 670          |
| Jarret Prairie                                 |         |                    | 102          |
| Severson Dells                                 |         |                    | 21           |
| NATURAL DIVISIONS                              |         | Acres              | % of         |
|  |         | <u>in RRA</u>      | <u>RRA</u>   |
| Rock River Hill Country                        | 173,663 | 84.2               | 11.5         |
| Northeastern Morainal                          | 22,274  | 10.8               | 0.9          |
| Grand Prairie                                  | 10,279  | 5.0                | 0.0          |





## DUPAGE RIVER

*The DuPage River site is located in the highly urbanized western suburbs of Chicago. It is comprised of the watershed of the East Branch of the DuPage River. Because of its small size, this RRA ranked relatively high among the watersheds based on percentage of forest and nonforested wetlands in the watershed. Wooded areas such as Morton Arboretum and county forest preserves contributed to inclusion of this site as a Resource Rich Area.*

**LANDCOVER** ♦ This RRA is the most urbanized of the sites; urban/built-up land accounts for 68% of the area. Upland woods cover 19% of the area, some of which is heavily wooded residential areas. There is little bottomland woods. The DuPage River RRA ranks sixth in percentage of nonforested wetlands; they are concentrated along the river.

**NATURAL AREAS** ♦ Seven sites covering 1,576 acres occur in this RRA. They range in size from small prairie sites (10 and 33 acres) and a marsh (eight acres) to Morton Arboretum (1,423 acres).

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams in this site.

**HERITAGE SITES** ♦ There are relatively few Heritage Sites; they include three community types, six plant species, and five animal species.

**STATE AND FEDERAL LAND** ♦ There is no state or federal land in this site.

**NATURE PRESERVES** ♦ Principal natural features at the two Nature Preserves in this RRA are prairies, upland forest, savanna, and sedge meadow.

**NATURAL DIVISIONS** ♦ This site lies entirely within the Northeastern Morainal Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

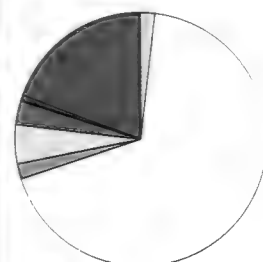
|   |        |
|---|--------|
| Total Acreage                           | 51,653 |
| Natural Areas                           |        |
| Acreage                                 | 1,576  |
| Number                                  | 7      |
| Biologically Significant Stream Mileage | 0      |
| Natural Heritage Sites                  | 17     |
| State Land                              |        |
| State Parks                             | 0      |
| State Conservation Areas                | 0      |
| State Forests                           | 0      |
| State Fish & Wildlife Areas             | 0      |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |
| Federal Land                            |        |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |

| LANDCOVER     | <u>Acres</u> | <u>% of RRA</u> |
|---------------|--------------|-----------------|
| Upland forest | 9,593.45     | 18.57           |

**Size:**  
51,653 acres  
81 square miles

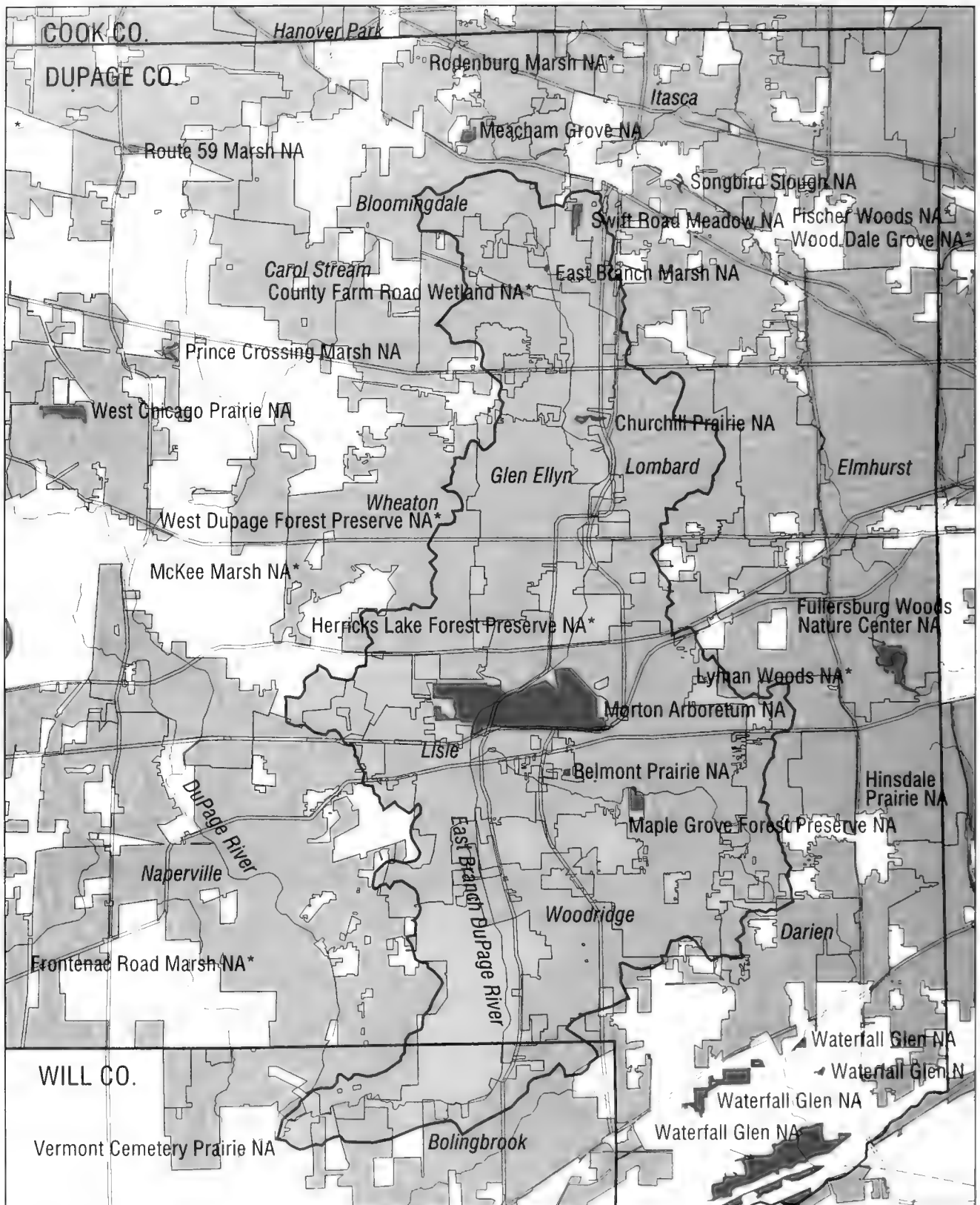
**Location:**  
Northeastern  
Illinois, western  
Chicago  
metropolitan area;  
DuPage and Will  
counties

Landcover at a Glance







|                   |     |
|-------------------|-----|
| upland forest     | 19% |
| bottomland forest | <1% |
| wetland           | 3%  |
| grassland         | 5%  |
| cropland          | 2%  |
| urban built-up    | 68% |
| water             | 2%  |





## DuPage River

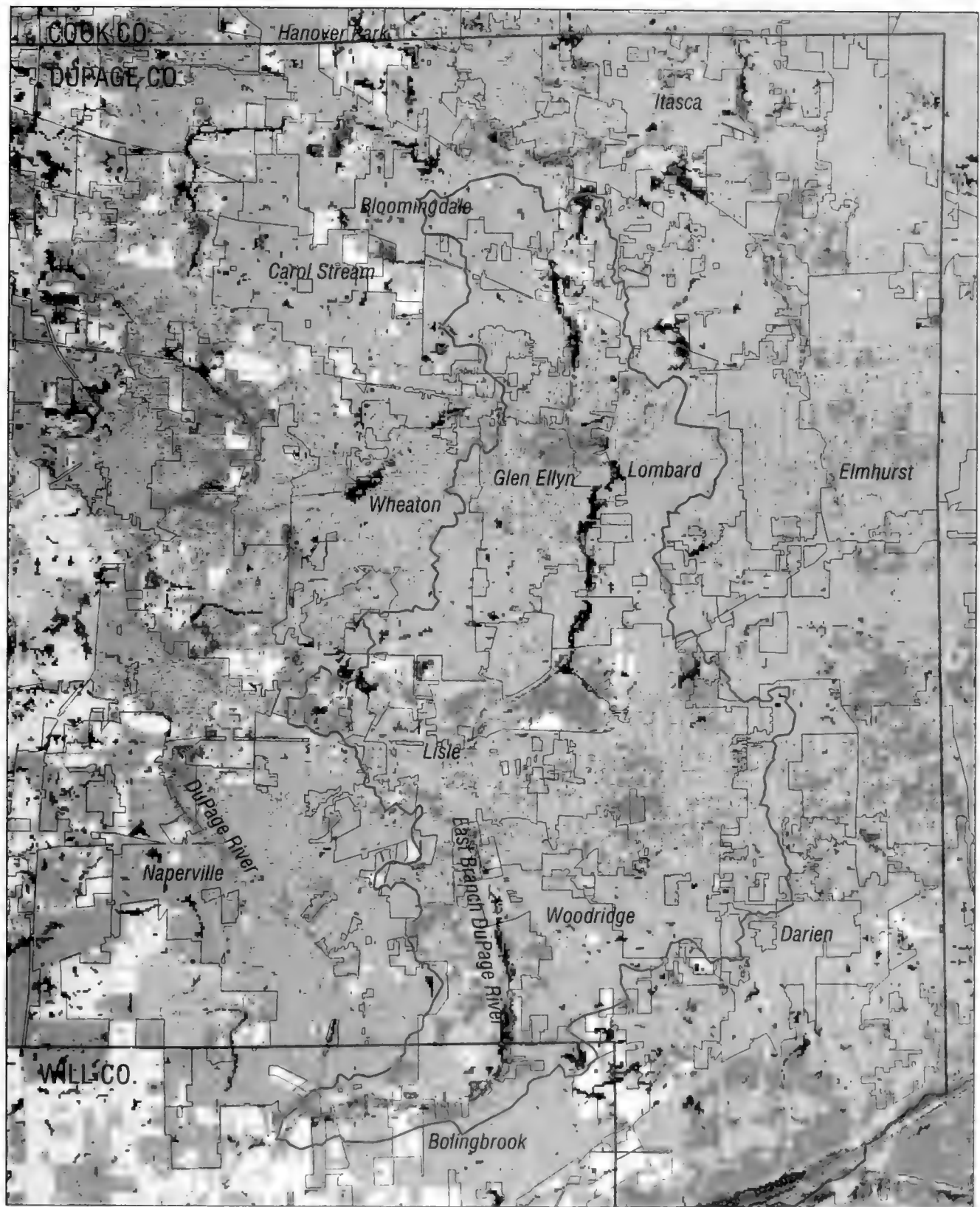
-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

2 Miles







# DuPage River



2 Miles

**M**orton Arboretum, comprised of designed landscapes, plant collections, and restored natural communities, is a living museum for research and education. Originally the land was mostly forested with some prairies, wetlands, and aquatic communities. The Morton family designated land from the family farm to be converted to an arboretum beginning in 1917. The Arboretum's prairie restoration site is one of the best places in Illinois to experience the prairies of presettlement times.

| LANDCOVER (continued)                  |  | <u>Acres</u>       | <u>% of RRA</u>      |
|--|--|--------------------|----------------------|
| Bottomland forest                      |  | 507.39             | 0.98                 |
| Wetland-nonforested                    |  | 1,351.77           | 2.62                 |
| Grassland                              |  | 2,706.95           | 5.24                 |
| Cropland                               |  | 1,309.42           | 2.54                 |
| Urban/Built-up                         |  | 35,252.98          | 68.26                |
| Water                                  |  | <u>925.26</u>      | <u>1.79</u>          |
| TOTAL                                  |  | 51,647.22          | 100.00               |
| ILLINOIS NATURAL AREAS INVENTORY SITES |  | <u>Acres</u>       |                      |
| Belmont Prairie                        |  | 10                 |                      |
| Churchill Prairie                      |  | 33                 |                      |
| East Branch Marsh                      |  | 8                  |                      |
| Lyman Woods                            |  | *                  |                      |
| Maple Grove Forest Preserve            |  | 52                 |                      |
| Morton Arboretum                       |  | 1,423              |                      |
| Swift Road Meadow                      |  | 51                 |                      |
| * = point location, map not available  |  |                    |                      |
| BIOLOGICALLY SIGNIFICANT STREAMS       |  |                    |                      |
| None                                   |  |                    |                      |
| NATURAL HERITAGE CATEGORIES            |  | <u>Occurrences</u> | <u>Types/Species</u> |
| Communities                            |  |                    |                      |
| Forest                                 |  | 2                  | 1                    |
| Prairie                                |  | 2                  | 2                    |
| Threatened and Endangered Animals      |  |                    |                      |
| Bird                                   |  | 4                  | 4                    |
| Reptile                                |  | 1                  | 1                    |
| Threatened and Endangered Plants       |  |                    |                      |
| Plant-Dicot                            |  | 3                  | 2                    |
| Plant-Monocot                          |  | 5                  | 4                    |
| Geological Feature                     |  |                    |                      |
| Other                                  |  |                    |                      |
| STATE AND FEDERAL LAND                 |  | <u>Acres</u>       |                      |
| State Parks                            |  | 0                  |                      |
| State Conservation Areas               |  | 0                  |                      |
| State Forests                          |  | 0                  |                      |
| State Fish and Wildlife Areas          |  | 0                  |                      |
| Federal Land                           |  | 0                  |                      |
| ILLINOIS NATURE PRESERVES              |  | <u>Acres</u>       |                      |
| Belmont Prairie                        |  | 10                 |                      |
| Churchill Prairie                      |  | 65                 |                      |
| NATURAL DIVISIONS                      |  | <u>Acres</u>       | <u>% of</u>          |
|  |  | <u>in RRA</u>      | <u>RRA</u>           |
| Northeastern Morainal                  |  | 51,653             | 100.0                |
|  |  |                    | <u>% of</u>          |
|  |  |                    | <u>Division</u>      |
|  |  |                    | 2.1                  |



## MISSISSIPPI - LOWER ROCK RIVER

*The Mississippi - Lower Rock River RRA includes major rivers, bottomlands, upland forests, prairies, and river bluffs. This RRA has a relatively high total acreage of Natural Areas due primarily to Mississippi River sites.*

**LANDCOVER** ♦ Cropland (54%) and grassland (18%) cover almost three-fourths of the land area. This RRA ranks 14th in percentage of bottomland woods, and 23rd in percentage of upland woods. Overall, woods accounts for almost 13% of the land area. This site has the fourth highest acreage and the ninth highest percentage of nonforested wetlands.

**NATURAL AREAS** ♦ This RRA ranks third among the RRAs in terms of the Natural Area acreage. Four Mississippi River sites account for the majority of Natural Area acreage. The natural features found in the 17 Natural Areas in this RRA include prairies, marshes, aquatic features, and forests.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Six BSS designations account for over 44 miles of BSS streams within this site. Three BSS segments occur on the Mississippi River and one on the Rock River.

**HERITAGE SITES** ♦ This RRA has 74 Heritage occurrences. Of the ten significant community types, seven are prairies. Four plant species, 17 animal species, and six rookeries are found in this site.

**STATE AND FEDERAL LAND** ♦ Within this RRA there are two state parks and one state fish and wildlife area. Federal land along the Mississippi River totals 15,694 acres.

**NATURE PRESERVES** ♦ Three Nature Preserves occur within the site. Elton E. Fawks Bald Eagle Refuge is the largest (164 acres) and serves as an important winter roosting site for bald eagles. Black Hawk Forest is one of the few remaining areas representative of the narrow, forested bluff lines which characterizes the Middle Mississippi Border Natural Division.

**NATURAL DIVISIONS** ♦ Seven natural divisions comprise this RRA. The Upper Mississippi and Illinois River Bottomlands is the predominant Natural Division (40%), followed by the Grand Prairie Division (22%) and the Middle Mississippi Border (20%).

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 457,449 |
| Natural Areas                           |         |
| Acreage                                 | 18,590  |
| Number                                  | 17      |
| Biologically Significant Stream Mileage | 44.2    |
| Natural Heritage Sites                  | 74      |
| State Land                              |         |
| State Parks                             | 2       |
| State Conservation Areas                | 0       |

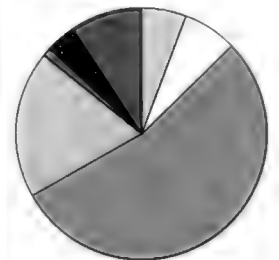
### Size:

457,449 acres  
715 square miles

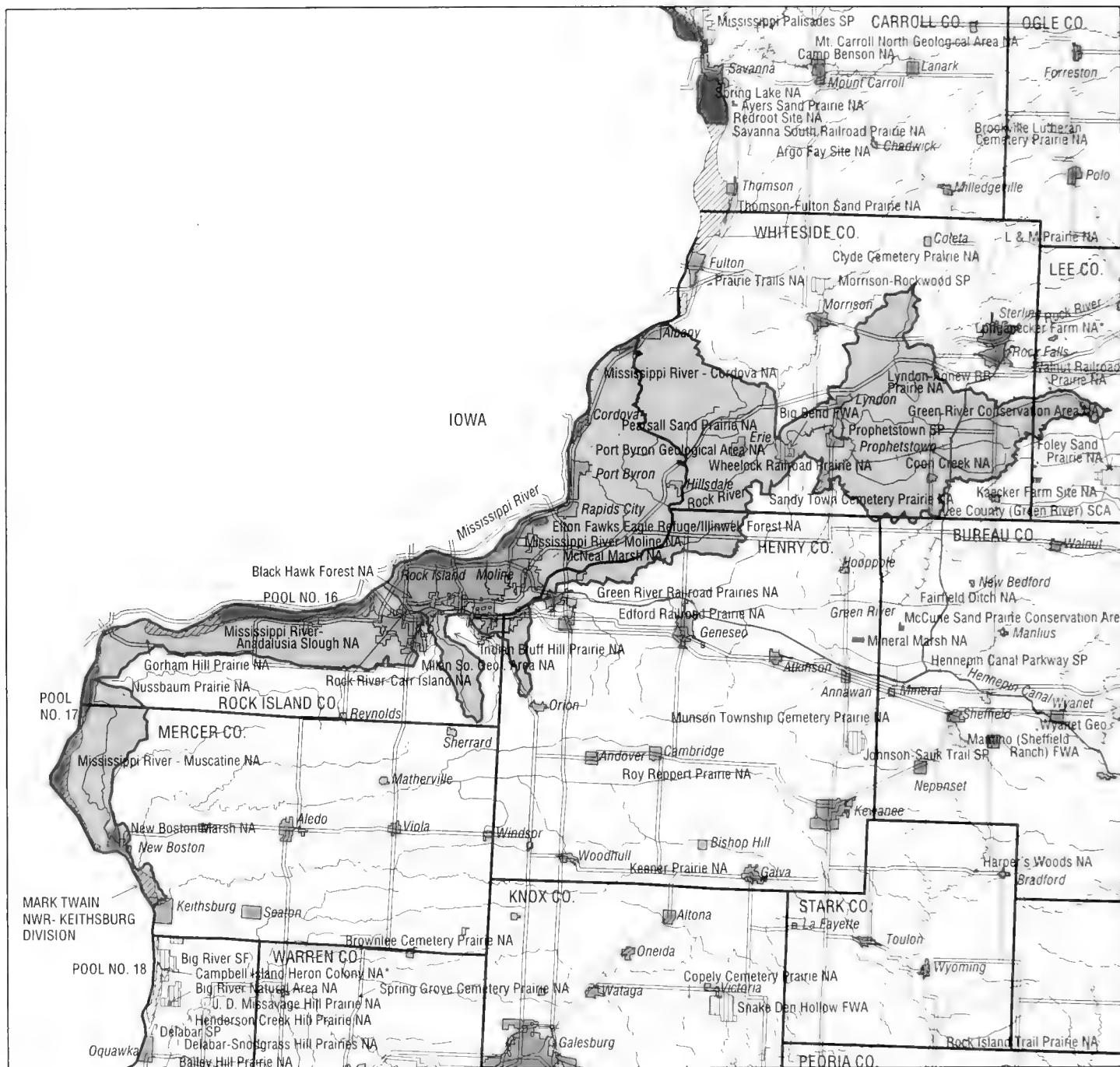
### Location:

Northwestern Illinois along the Mississippi and lower Rock Rivers; Bureau, Henry, Lee, Mercer, Rock Island, and Whiteside counties

### Landcover at a Glance



|                   |     |
|-------------------|-----|
| upland forest     | 9%  |
| bottomland forest | 4%  |
| wetland           | 1%  |
| grassland         | 18% |
| cropland          | 54% |
| urban built-up    | 7%  |
| water             | 6%  |



## Mississippi-Lower Rock

- Natural Area
- Town
- State Land
- Federal Land

- Stream
- Significant Stream
- Highway
- County

10 Miles





## Mississippi-Lower Rock



10 Miles

**B**ald eagles once commonly nested along the large rivers in Illinois. Declines in the continental population were reflected in the small number of eagles observed in Illinois from the late 1800s to the mid 1900s. Although nesting bald eagles are rare in Illinois, important wintering sites for bald eagles are found along the Mississippi and Illinois rivers. Eagles which nest further north migrate to this area to feed on the fish below the dams where the turbulent water remains open even in the coldest winters. One important winter roost is just upstream from the Quad Cities at the Elton E. Fawks Bald Eagle Refuge Nature Preserve.

State Land (*continued*)

|                             |        |
|-----------------------------|--------|
| State Forests               | 0      |
| State Fish & Wildlife Areas | 1      |
| Acreage                     | 1,493  |
| Percentage of RRA           | 0.3    |
| Federal Land                |        |
| Acreage                     | 15,694 |
| Percentage of RRA           | 3.4    |

| LANDCOVER           | <u>Acres</u>     | <u>% of RRA</u> |
|---------------------|------------------|-----------------|
| Upland forest       | 39,064.63        | 8.54            |
| Bottomland Forest   | 18,722.26        | 4.09            |
| Wetland-nonforested | 5,834.99         | 1.28            |
| Grassland           | 84,511.77        | 18.47           |
| Cropland            | 246,919.00       | 53.98           |
| Urban-Built Up      | 33,937.74        | 7.42            |
| Water               | <u>28,449.17</u> | <u>6.22</u>     |
| TOTAL               | 457,439.56       | 100.00          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|   | <u>Acres</u> |
|---|--------------|
| Black Hawk Forest                         | 93           |
| Coon Creek                                | 58           |
| Elton Fawks Eagle Refuge/Illiniwek Forest | 706          |
| Gorham Hill Prairie                       | 11           |
| Lyndon -Agnew Railroad Prairie            | 32           |
| McNeal Marsh                              | 47           |
| Mississippi River - Andalusia Slough      | 6,455        |
| Mississippi River - Cordova               | 2,034        |
| Mississippi River - Moline                | 2,297        |
| Mississippi River - Muscatine             | 5,106        |
| New Boston Marsh                          | 1,147        |
| Nussbaum Prairie                          | 41           |
| Pearsall Sand Prairie                     | 13           |
| Port Byron Geological Area                | 10           |
| Rock River-Carr Island                    | 530          |
| Sandy Town Cemetery Prairie               | 4            |
| Wheelock Railroad Prairie                 | 6            |

## BIOLOGICALLY SIGNIFICANT STREAMS

|   | <u>Miles</u> |
|---|--------------|
| Coon Creek                                      | 7.5          |
| County Ditch #1                                 | 5.6          |
| Mississippi River, Andalusia Slough             | 10.6         |
| Mississippi River, Sylvan Slough/Arsenal Island | 4.9          |
| Mississippi River, rm 501-509, Rock Island Co.  | 8.5          |
| Rock River, Lyndon to Indian Island             | 7.1          |

## NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Wetland                           | 2                  | 1                    |
| Forest                            | 3                  | 2                    |
| Prairie                           | 10                 | 7                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 13                 | 5                    |
| Fish                              | 7                  | 4                    |
| Mammal                            | 4                  | 2                    |
| Reptile                           | 2                  | 1                    |

|  |               |                 |
|--|---------------|-----------------|
| Mollusk  | 22            | 5               |
| Threatened and Endangered Plants               |               |                 |
| Plant-Dicot                                    | 2             | 2               |
| Plant-Monocot                                  | 1             | 1               |
| Plant-Fern/Fern Ally                           | 1             | 1               |
| Geological Feature                             |               |                 |
| Geological Feature                             | 1             | 1               |
| Other  |               |                 |
| Rookery  | 6             | 1               |
| STATE AND FEDERAL LAND                         |               |                 |
| State Parks                                    |               | <u>Acres</u>    |
| Hennepin Canal Parkway                         |               | 325             |
| Prophetstown                                   |               | 60              |
| State Conservation Areas                       |               | 0               |
| State Forests                                  |               | 0               |
| State Fish and Wildlife Areas                  |               |                 |
| Big Bend                                       |               | 1,108           |
| Federal Land                                   |               |                 |
| Mark Twain NWR -Keithsburg Division            |               | 1,440           |
| Pool No. 16                                    |               | 8,305           |
| Pool No. 17                                    |               | 5,267           |
| Upper Mississippi River Fish & Wildlife Refuge |               | 681             |
| ILLINOIS NATURE PRESERVES                      |               |                 |
| Black Hawk Forest                              |               | <u>Acres</u>    |
| Elton E. Fawks Bald Eagle Refuge               |               | 97              |
| Lyndon Prairie                                 |               | 164             |
|  |               | 59              |
| NATURAL DIVISIONS                              |               |                 |
|  | <u>Acres</u>  | <u>% of</u>     |
|  | <u>in RRA</u> | <u>RRA</u>      |
| Upper Mississippi R and                        |               | <u>% of</u>     |
| Illinois R Bottomlands                         | 182,894       | <u>Division</u> |
| Grand Prairie                                  | 99,974        | 15.5            |
| Middle Mississippi Border                      | 90,877        | 0.8             |
| Rock River Hill Country                        | 35,157        | 5.8             |
| Illinois R and Mississippi R                   |               | 2.3             |
| Sand Areas                                     | 26,283        | 5.8             |
| Major Water Bodies                             | 19,551        | 6.8             |
| Western Forest-Prairie                         | 1,949         | 4.3             |
|  |               | 0.4             |

**M**ussel harvesting in the rich mussel beds of the upper Mississippi River has taken place since the early 1900s. Mussel shells were sold to the button industry until the widespread use of plastics after World War II. Since the 1960s, mussels have been harvested for export to Japan, where the shells are cut up and ground into round pellets and implanted into oysters to produce cultured pearls. Mussels are no longer abundant. Of the eighty species native to Illinois, more than half are threatened, endangered, extirpated, or extinct.

**Size:**

43,470 acres

68 square miles

**Location:**

Northeastern

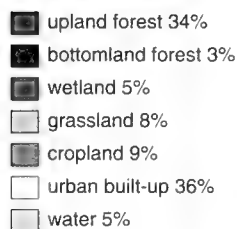
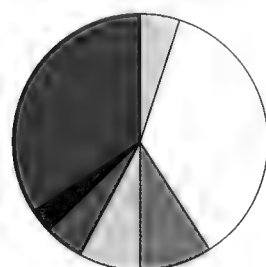
Illinois, southwest-

ern Chicago

metropolitan area;

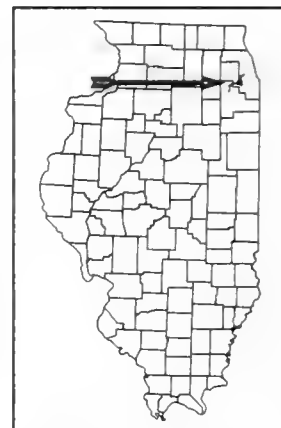
Cook, DuPage, and

Will counties

**Landcover at a Glance**

## DES PLAINES RIVER

*The Des Plaines River RRA is a small, highly urbanized site which forms a narrow corridor along the river from just west of Chicago to Joliet. Relatively high percentages of upland woods and nonforested wetlands occur in this site. Important natural features include prairie, savanna, river bluff, cliff, wetlands, floodplain and upland forest.*



**LANDCOVER** ♦ This site is one-third urban and one-third upland woods. The Des Plaines River RRA ranks third in percentage of upland woods and second in percentage of nonforested wetlands, although actual acreages are relatively low. Larger wooded tracts are located in county forest preserves, especially at the confluence of the Calumet Sag Channel and the Des Plaines River. Nonforested wetlands are concentrated along the river.

**NATURAL AREAS** ♦ Eleven Natural Areas occur in this RRA. They are predominantly woods or prairie sites and range in size from three to 675 acres.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams at this site.

**HERITAGE SITES** ♦ There are 61 Heritage Sites representing 15 significant community types, eight plant species, ten animal species, one large forest tract, and a rookery.

**STATE AND FEDERAL LAND** ♦ There are no state or federal lands at this site.

**NATURE PRESERVES** ♦ There are nine Nature Preserves. Cap Sauers Holdings, at 1,548 acres, is one of the largest preserves in northeastern Illinois. Principal natural features found in the Nature Preserves are river bluffs, ravine forests, springs, sedge meadows, marshes, fens, prairies, savannas, floodplain, and upland woods. Some of the natural features represent the last remaining examples in northeastern Illinois.

**NATURAL DIVISIONS** ♦ This RRA lies almost entirely within the Northeastern Morainal Natural Division.

**SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS**

|   |        |
|---|--------|
| Total Acreage                           | 43,470 |
| Natural Areas                           |        |
| Acreage                                 | 2,115  |
| Number                                  | 11     |
| Biologically Significant Stream Mileage | 0      |
| Natural Heritage Sites                  | 61     |
| State Land                              |        |
| State Parks                             | 0      |
| State Conservation Areas                | 0      |
| State Forests                           | 0      |
| State Fish & Wildlife Areas             | 0      |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |
| Federal Land                            |        |
| Acreage                                 | 0      |



|                     |                  |                 |
|---------------------|------------------|-----------------|
| Percentage of RRA   |                  | 0.0             |
| <b>LANDCOVER</b>    | <u>Acres</u>     | <u>% of RRA</u> |
| Upland forest       | 14,695.45        | 33.81           |
| Bottomland forest   | 1,247.40         | 2.87            |
| Wetland-nonforested | 2,072.71         | 4.77            |
| Grassland           | 3,400.80         | 7.82            |
| Cropland            | 3,985.66         | 9.17            |
| Urban/Built-up      | 15,795.73        | 36.34           |
| Water               | 2,273.22         | 5.23            |
| <b>TOTAL</b>        | <b>43,470.97</b> | <b>100.01</b>   |

|   |              |
|---|--------------|
| <b>ILLINOIS NATURAL AREAS INVENTORY SITES</b> | <u>Acres</u> |
| Black Partridge Woods                         | 80           |
| Little Red Schoolhouse Nature Center          | 354          |
| Lockport Prairie                              | 246          |
| Material Services Prairie                     | 73           |
| O'Hara Woods                                  | 51           |
| Palos Fen                                     | 6            |
| Paw Paw Woods                                 | 410          |
| Romeoville Prairie                            | 203          |
| Sagawau Canyon                                | 3            |
| Santa Fe Prairie                              | 14           |
| Waterfall Glen                                | 675          |

**BIOLOGICALLY SIGNIFICANT STREAMS**  
None

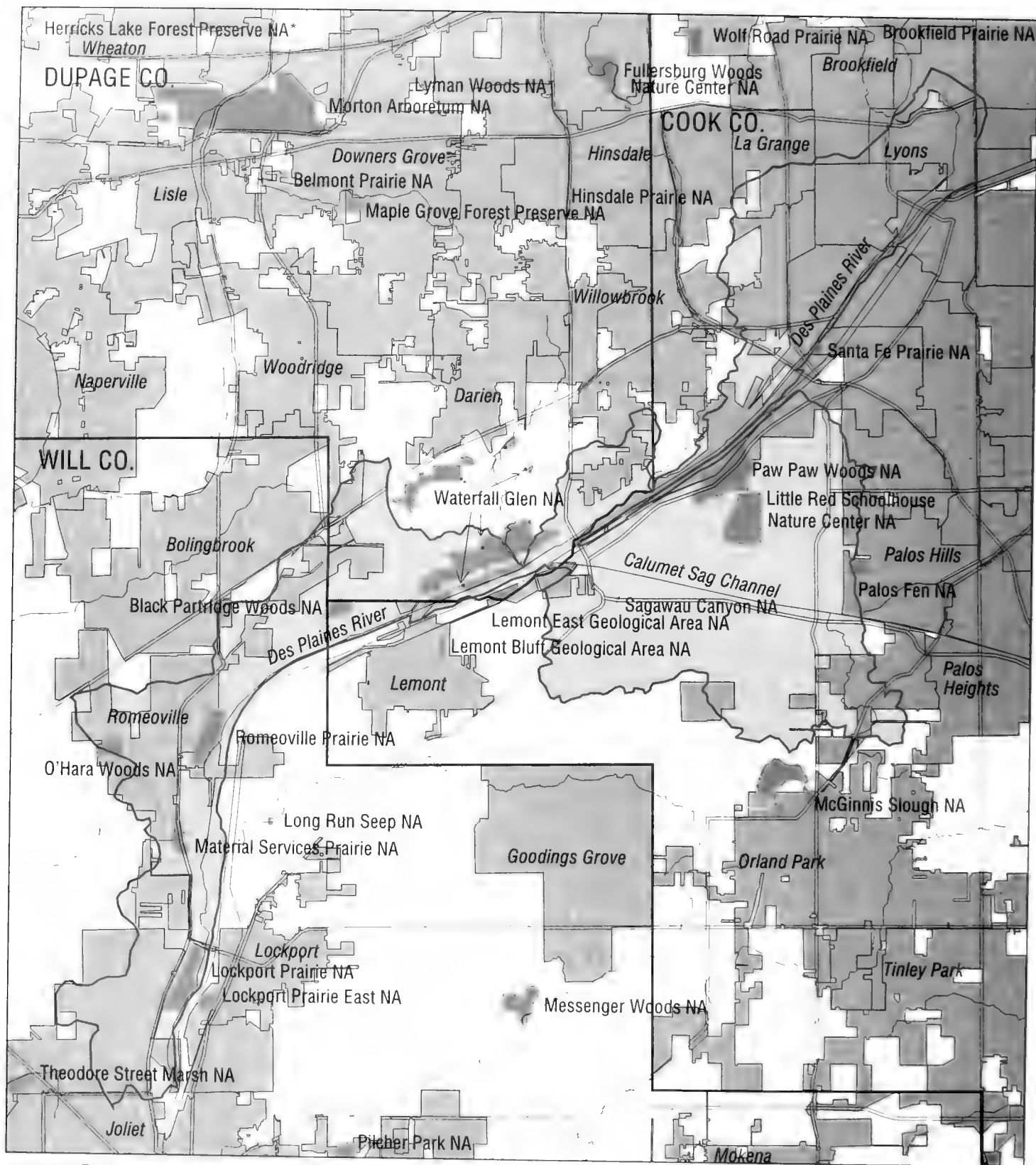
**NATURAL HERITAGE CATEGORIES**

|  |                    |                      |
|--|--------------------|----------------------|
| <b>Communities</b>                       | <u>Occurrences</u> | <u>Types/Species</u> |
| Floodplain Forest                        | 2                  | 2                    |
| Wetland                                  | 5                  | 4                    |
| Forest                                   | 4                  | 2                    |
| Prairie                                  | 9                  | 6                    |
| Primary                                  | 1                  | 1                    |
| <b>Threatened and Endangered Animals</b> |                    |                      |
| Bird                                     | 10                 | 6                    |
| Mammal                                   | 1                  | 1                    |
| Reptile                                  | 4                  | 2                    |
| Insect                                   | 6                  | 1                    |
| <b>Threatened and Endangered Plants</b>  |                    |                      |
| Plant-Dicot                              | 9                  | 5                    |
| Plant-Monocot                            | 8                  | 3                    |
| <b>Geological Feature</b>                |                    |                      |
| <b>Other</b>                             |                    |                      |
| Forest Block >500 Acres                  | 1                  | 1                    |
| Rookery                                  | 1                  | 1                    |

|                               |              |
|-------------------------------|--------------|
| <b>STATE AND FEDERAL LAND</b> | <u>Acres</u> |
| State Parks                   | 0            |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas | 0            |
| Federal Land                  | 0            |





|                                  |              |
|----------------------------------|--------------|
| <b>ILLINOIS NATURE PRESERVES</b> | <u>Acres</u> |
| Black Partridge Woods            | 70           |

**T**he Des Plaines River valley from just southwest of Chicago's Midway Airport to Joliet is remarkable for its glacial history and its resultant landscape. Vertical cliffs were carved by torrential meltwaters from the last glaciers. Where the dolomite (a type of limestone) is exposed, a harsh environment supports a limited number of hardy plants. Low gravel ridges parallel to the river stay dry while the floodplain stays wet for long periods. The fens, marshes, and wet prairies that occur in low spots add to the variety of habitats. Dolomite prairies, like those found here, have almost completely disappeared from the Midwest.



## Des Plaines River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

2 Miles





## Des Plaines River



2 Miles

**T**he habitat of the Hine's emerald dragonfly is a rare and localized wetland type found in Illinois only along the Des Plaines River. This dragonfly is found in shallow marshes, wet meadows, and small streams where calcareous water emerges between the limestone bedrock and overlying glacial till. Currently found at only a few sites in Illinois and Wisconsin, the Hine's emerald dragonfly is a state endangered species. In Illinois, the largest threat to this dragonfly is habitat loss due to development.

ILLINOIS NATURE PRESERVES (*continued*)

|                       | <u>Acres</u>  |            |                 |
|-----------------------|---------------|------------|-----------------|
| Cap Sauers Holdings   |               |            | 1,548           |
| Cranberry Slough      |               |            | 985             |
| Lockport Prairie      |               |            | 269             |
| O'Hara Woods          |               |            | 45              |
| Palos Fen             |               |            | 22              |
| Paw Paw Woods         |               |            | 116             |
| Romeoville Prairie    |               |            | 100             |
| Sagawau Canyon        |               |            | 9               |
| NATURAL DIVISIONS     | Acres         | % of       | % of            |
|                       | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Northeastern Morainal | 43,115        | 99.2       | 1.7             |
| Grand Prairie         | 355           | 0.8        | 0.0             |





## THORN CREEK

*The Thorn Creek RRA is characterized as heavily urbanized with its natural resources confined along streams and in forest preserves. This is a relatively small site.*

**LANDCOVER** ♦ The site is 61% urban/built-up and 24% upland woods. Much of the woods occurs in the county forest preserves; some is wooded residential areas. Small amounts of nonforested wetlands and bottomland forest acreages are located in this RRA.

**NATURAL AREAS** ♦ The five Natural Areas in Thorn Creek RRA total 927 acres. The natural areas include examples of upland, bottomland and ravine woodlands, glacial potholes, prairies, and streams.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams in this RRA.

**HERITAGE SITES** ♦ There are 13 Heritage occurrences: three significant community types, seven plants species, and three animal species.

**STATE AND FEDERAL LAND** ♦ There is no state or federal land at this site.

**NATURE PRESERVES** ♦ The two Nature Preserves located in this site feature forest, prairie, and marsh communities.

**NATURAL DIVISIONS** ♦ This site lies entirely within the Northeastern Morainal Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

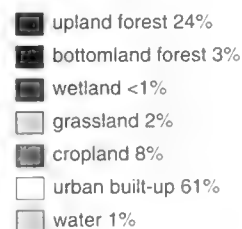
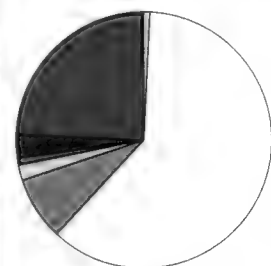
|   |        |
|---|--------|
| Total Acreage                           | 20,614 |
| Natural Areas                           |        |
| Acreage                                 | 927    |
| Number                                  | 5      |
| Biologically Significant Stream Mileage | 0      |
| Natural Heritage Sites                  | 13     |
| State Land                              |        |
| State Parks                             | 0      |
| State Conservation Areas                | 0      |
| State Forests                           | 0      |
| State Fish & Wildlife Areas             | 0      |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |
| Federal Land                            |        |
| Acreage                                 | 0      |
| Percentage of RRA                       | 0.0    |

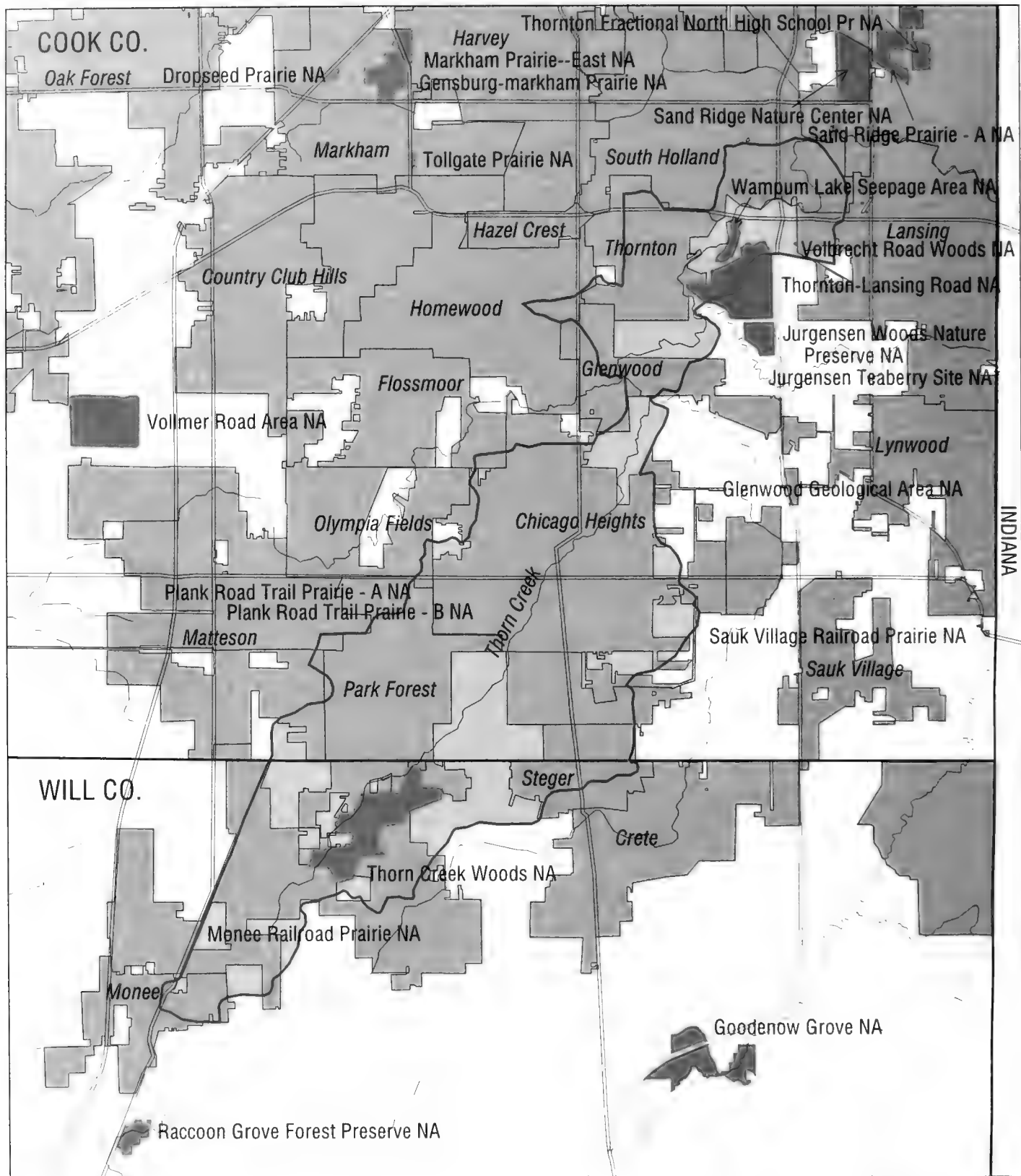
| LANDCOVER           | Acres    | % of RRA |
|---------------------|----------|----------|
| Upland forest       | 4,904.91 | 23.80    |
| Bottomland forest   | 673.18   | 3.27     |
| Wetland-nonforested | 132.87   | 0.64     |
| Grassland           | 478.29   | 2.32     |
| Cropland            | 1,669.69 | 8.10     |

**Size:**  
20,614 acres  
32 square miles





**Location:**  
Northeastern  
Illinois,  
southern Chicago  
metropolitan area;  
Cook and Will  
counties





Landcover at a Glance





## Thorn Creek

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

2 Miles







Thorn Creek

2 Miles



**T**horn Creek Woods Nature preserve is a 500-acre area at the southern end of a broad woodland along Thorn Creek. Narrow ridges and deep ravines, broad uplands, shallow depressions, and the stream valley are characteristics of the area. Red oak, white oak, sugar maple, black maple, and basswood are the predominant tree species.

| LANDCOVER (continued)                  |               | <u>Acres</u>       | <u>% of RRA</u>      |
|--|---------------|--------------------|----------------------|
| Urban/Built-Up                         |               | 12,511.54          | 60.70                |
| Water                                  |               | <u>242.25</u>      | <u>1.18</u>          |
| TOTAL                                  |               | 20,612.73          | 100.01               |
| ILLINOIS NATURAL AREAS INVENTORY SITES |               | <u>Acres</u>       |                      |
| Monee Railroad Prairie                 |               |                    | 8                    |
| Thorn Creek Woods                      |               |                    | 631                  |
| Thornton-Lansing Road                  |               |                    | 219                  |
| Volbrecht Road Woods                   |               |                    | 3                    |
| Wampum Lake Seepage Area               |               |                    | 66                   |
| BIOLOGICALLY SIGNIFICANT STREAMS       |               |                    |                      |
| None                                   |               |                    |                      |
| NATURAL HERITAGE CATEGORIES            |               | <u>Occurrences</u> | <u>Types/Species</u> |
| Communities                            |               |                    |                      |
| Wetland                                |               | 1                  | 1                    |
| Forest                                 |               | 1                  | 1                    |
| Prairie                                |               | 1                  | 1                    |
| Threatened and Endangered Animals      |               |                    |                      |
| Bird                                   |               | 3                  | 3                    |
| Threatened and Endangered Plants       |               |                    |                      |
| Plant-Dicot                            |               | 5                  | 5                    |
| Plant-Monocot                          |               | 2                  | 2                    |
| Geological Feature                     |               |                    |                      |
| Other                                  |               |                    |                      |
| STATE AND FEDERAL LANDS                |               | <u>Acres</u>       |                      |
| State Parks                            |               |                    | 0                    |
| State Conservation Areas               |               |                    | 0                    |
| State Forests                          |               |                    | 0                    |
| State Fish and Wildlife Areas          |               |                    | 0                    |
| Federal Land                           |               |                    | 0                    |
| ILLINOIS NATURE PRESERVES              |               | <u>Acres</u>       |                      |
| Thorn Creek Woods                      |               |                    | 513                  |
| Thornton-Lansing Road                  |               |                    | 80                   |
| NATURAL DIVISIONS                      |               | <u>Acres</u>       | <u>% of</u>          |
|  | <u>in RRA</u> | <u>RRA</u>         | <u>Division</u>      |
| Northeastern Morainal                  | 20,614        | 100.0              | 0.8                  |





## PRAIRIE PARKLANDS

*The dominant feature of the Prairie Parklands RRA is the recently created Midewin National Tallgrass Prairie, the nation's first federally designated tallgrass prairie, at the former Joliet Arsenal. Significant natural features in the RRA include prairies, wetlands, and streams. The southern border of Prairie Parklands RRA adjoins the Kankakee-Iroquois RRA.*

**LANDCOVER** ♦ The landcover at this site is predominantly cropland (45%) followed by grassland (30%). This site ranks third in percentage of grassland and has the highest percentage outside of northwestern Illinois. Prairie Parklands ranks eighth for percentage of nonforested

wetlands. Compared to the other RRAs, the percentages of upland and bottomland forest are low.

**NATURAL AREAS** ♦ More than 10,000 acres (18 sites) of Natural Areas are recognized in this RRA. Joliet Army Ammunition Plant (i.e. Joliet Arsenal) accounts for half of the acreage. The other Natural Areas include prairies, savannas, geological features, and aquatic systems.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ BSS streams in this RRA are the Illinois and Kankakee Rivers and Manhattan Creek, which total approximately 24 miles.

**HERITAGE SITES** ♦ The 85 Heritage sites include 12 significant community types, eight of which are prairies. Sixteen species of plants and 17 species of animals are listed as Heritage occurrences.

**STATE AND FEDERAL LAND** ♦ Twenty-two percent of this RRA is state or federal land. Two state parks and a state conservation area are located in the Prairie Parklands RRA. At the time of this analysis the largest public holding, with 26,904 acres, was the Joliet Arsenal; much of this land will become the Midewin National Tallgrass Prairie.

**NATURE PRESERVES** ♦ The six Nature Preserves in this RRA include several prairies, as well as savannas, wet meadows, and marshes. They range in size from a prairie in a cemetery of less than an acre to Goose Lake Prairie (1,580 acres).

**NATURAL DIVISIONS** ♦ Most of the Prairie Parklands RRA is in the Grand Prairie Division; 10% is Northeastern Morainal Division.

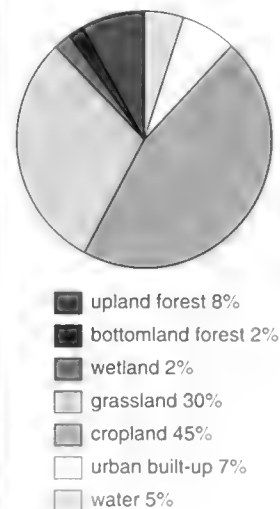
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 152,669 |
| Natural Areas                           |         |
| Acreage                                 | 10,037  |
| Number                                  | 18      |
| Biologically Significant Stream Mileage | 23.8    |
| Natural Heritage Sites                  | 85      |
| State Land                              |         |
| State Parks                             | 2       |

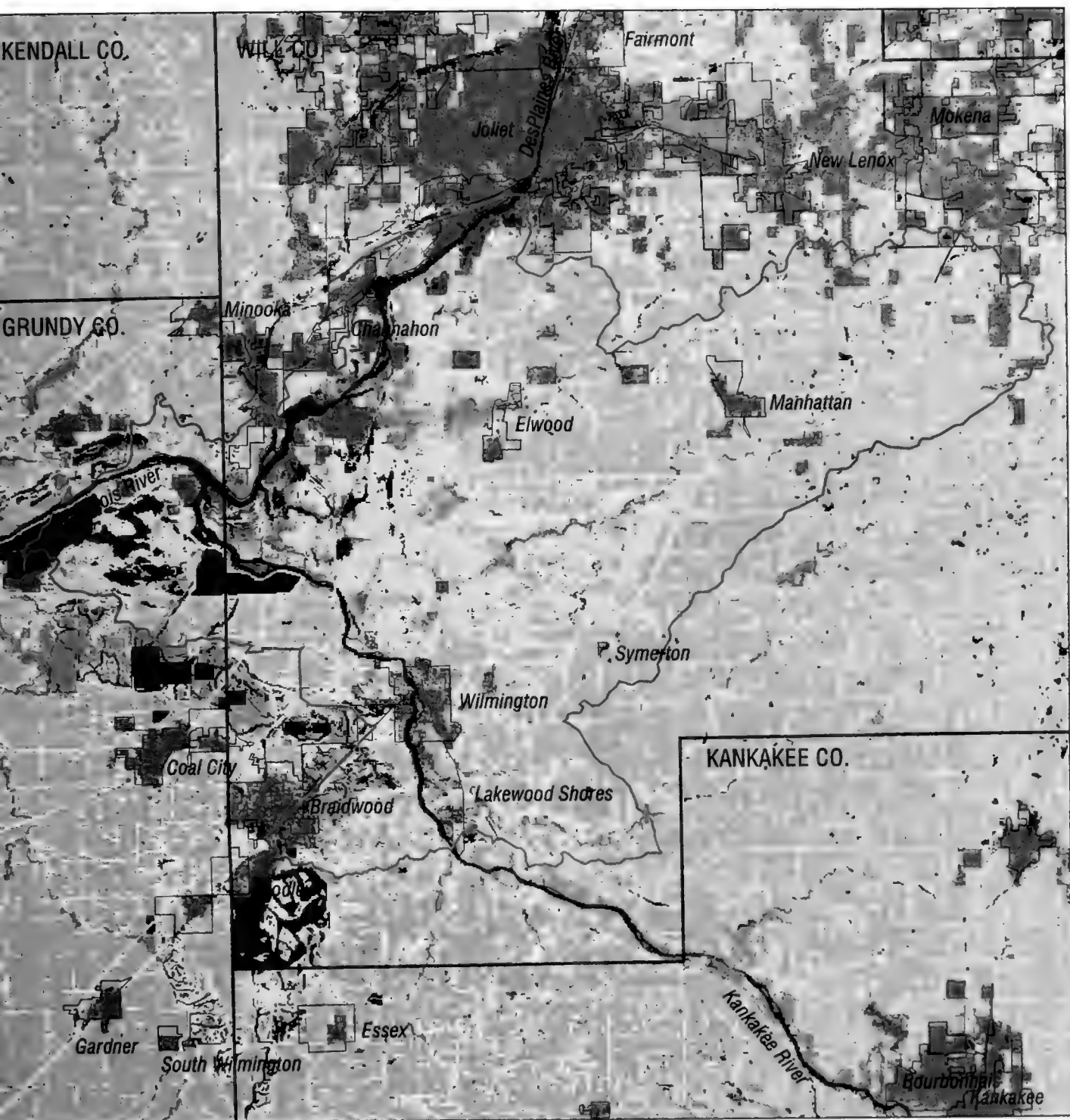
**Size:**  
152,669 acres  
239 square miles

**Location:**  
Northeastern  
Illinois south of  
Joliet;  
Grundy and  
Will counties

Landcover at a Glance







## Prairie Parklands



4 Miles

**G**oose Lake Prairie is the largest prairie remnant in Illinois. What remains today are prairies and marshes with a large and diverse biota; over 326 species of vascular plants are present. Several unusual birds, such as the least bittern, Henslow's sparrow, Virginia rail, and northern harrier nest or inhabit the area.

State Land (*continued*)

|                             |        |
|-----------------------------|--------|
| State Conservation Areas    | 1      |
| State Forests               | 0      |
| State Fish & Wildlife Areas | 0      |
| Acreage                     | 7,324  |
| Percentage of RRA           | 4.8    |
| Federal Land                |        |
| Acreage                     | 26,904 |
| Percentage of RRA           | 17.6   |

| LANDCOVER             | <u>Acres</u>    | <u>% of RRA</u> |
|-----------------------|-----------------|-----------------|
| Upland forest         | 1,691.45        | 7.66            |
| Bottomland forest     | 3,225.38        | 2.11            |
| Wetland - nonforested | 3,485.30        | 2.28            |
| Grassland             | 46,474.97       | 30.44           |
| Cropland              | 68,991.81       | 45.19           |
| Urban/Built-up        | 10,778.23       | 7.06            |
| Water                 | <u>8,023.51</u> | <u>5.26</u>     |
| TOTAL                 | 152,670.65      | 100.00          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                                 | <u>Acres</u> |
|---------------------------------|--------------|
| Blodgett Road Dolomite Prairie  | *            |
| Braidwood Dunes and Savanna     | 298          |
| Collins Station Prairie         | 15           |
| Des Plaines Dolomite Prairie    | 9            |
| Goose Lake Prairie              | 1,674        |
| Grant Creek Prairie             | 117          |
| Hitts Siding Prairie            | 244          |
| Illinois River -Dresden         | 847          |
| Joliet Army Ammunition Plant    | 5,831        |
| Kankakee River                  | 698          |
| Manhattan Creek                 | 29           |
| Munch Area                      | 142          |
| Plaines Station Geological Area | 5            |
| Rock Run Corn Salad Site        | 3            |
| Rockdale Geological Area        | 4            |
| Schweizer West Geological Area  | 3            |
| Wilmington Geological Area      | 2            |
| Wilmington Shrub Prairie        | 115          |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|   | <u>Miles</u> |
|---|--------------|
| Illinois River, above Dresden L&D                 | 7.1          |
| Kankakee River, Momence to Des Plaines Cons. Area | 8.4          |
| Manhattan Creek                                   | 8.4          |

## NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Lake                              | 1                  | 1                    |
| Wetland                           | 3                  | 2                    |
| Savanna                           | 1                  | 1                    |
| Prairie                           | 17                 | 8                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 23                 | 10                   |
| Fish                              | 6                  | 4                    |
| Insect                            | 5                  | 2                    |

|                                  |               |              |
|----------------------------------|---------------|--------------|
| Mollusk                          | 1             | 1            |
| Threatened and Endangered Plants |               |              |
| Plant-Dicot                      | 13            | 9            |
| Plant-Monocot                    | 7             | 5            |
| Plant-Fern/Fern Ally             | 4             | 2            |
| Geological Feature               |               |              |
| Geological Feature               | 4             | 1            |
| Other                            |               |              |
| <b>STATE AND FEDERAL LAND</b>    |               |              |
| State Parks                      |               | <u>Acres</u> |
| Goose Lake Prairie               |               | 2,412        |
| Illinois & Michigan Canal        |               | 260          |
| State Conservation Areas         |               |              |
| Des Plaines                      |               | 4,652        |
| State Forests                    |               | 0            |
| State Fish and Wildlife Areas    |               | 0            |
| Federal Land                     |               |              |
| Joliet Arsenal                   |               | 26,904       |
| <b>ILLINOIS NATURE PRESERVES</b> |               |              |
|                                  |               | <u>Acres</u> |
| Braidwood Dunes and Savanna      |               | 244          |
| Goose Lake Prairie               |               | 1,580        |
| Grant Creek Prairie              |               | 69           |
| Sand Ridge Savanna               |               | 158          |
| Short Pioneer Cemetery Prairie   |               | <1           |
| Wilmington Shrub Prairie         |               | 157          |
| <b>NATURAL DIVISIONS</b>         |               |              |
|                                  | <u>Acres</u>  | <u>% of</u>  |
|                                  | <u>in RRA</u> | <u>RRA</u>   |
| Grand Prairie                    | 136,906       | 89.7         |
| Northeastern Morainal            | 15,763        | 10.3         |

**T**he upland sandpiper, a bird that inhabits prairies, pastures, and hayfields, nests in the Prairie Parklands area. Formerly a common summer resident throughout the state, the upland sandpiper is now an endangered species in Illinois, driven to near-extinction by the loss of prairies and market hunting. The largest concentration of upland sandpipers in the state is in the Prairie Parklands area. Preservation and proper management of large grassland areas are critical for this species.

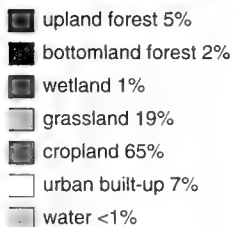
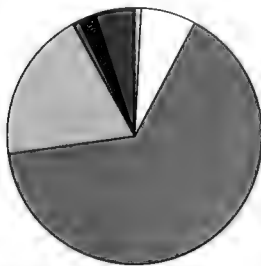
**Size:**

231,005 acres

361 square miles

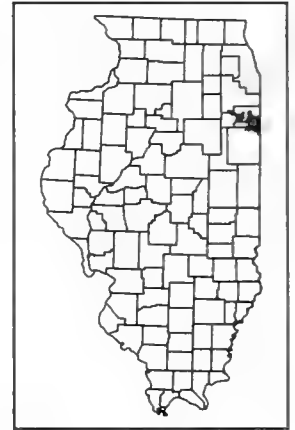
**Location:**

Northern part of  
east-central Illinois  
near the Indiana  
border; Iroquois,  
Kankakee, and Will  
counties

**Landcover at a Glance**

## KANKAKEE - IROQUOIS

*The Kankakee River RRA is relatively flat with low sandy ridges. Before the land was drained and cultivated, sand prairie and marsh were common; the area is now largely agricultural. Aquatic systems and savannas are important remaining natural resources of the area. The Kankakee River forms the core of the RRA and is unusual in Illinois because it is on or near bedrock.*



**LANDCOVER** ♦ Cropland covers 65% of this RRA, followed by grassland (19%) and urban/built-up (7%). The Kankakee-Iroquois RRA ranks low among the RRAs in percentage of upland and bottomland woods. Nonforested wetland acreage is moderate.

**NATURAL AREAS** ♦ There are 17 Natural Areas in this RRA. Several are associated with the Kankakee River and account for the largest acreage. Many savannas occur in this RRA.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ This site ranks fifth in terms of total BSS stream mileage with 63 miles. Approximately half the mileage is the Kankakee River.

**HERITAGE SITES** ♦ Several significant community types are included in the 67 Heritage points located in this RRA. Fourteen significant community types, 17 plant species, and nine animal species are located here.

**STATE AND FEDERAL LANDS** ♦ Kankakee River State Park and the Iroquois County Conservation Area are the state owned land in the RRA. There is no federal land in this site.

**NATURE PRESERVES** ♦ Three Nature Preserves are located in this site. Large sand savanna with dune and swale topography, and upland and bottomland forest are significant natural features in the preserves.

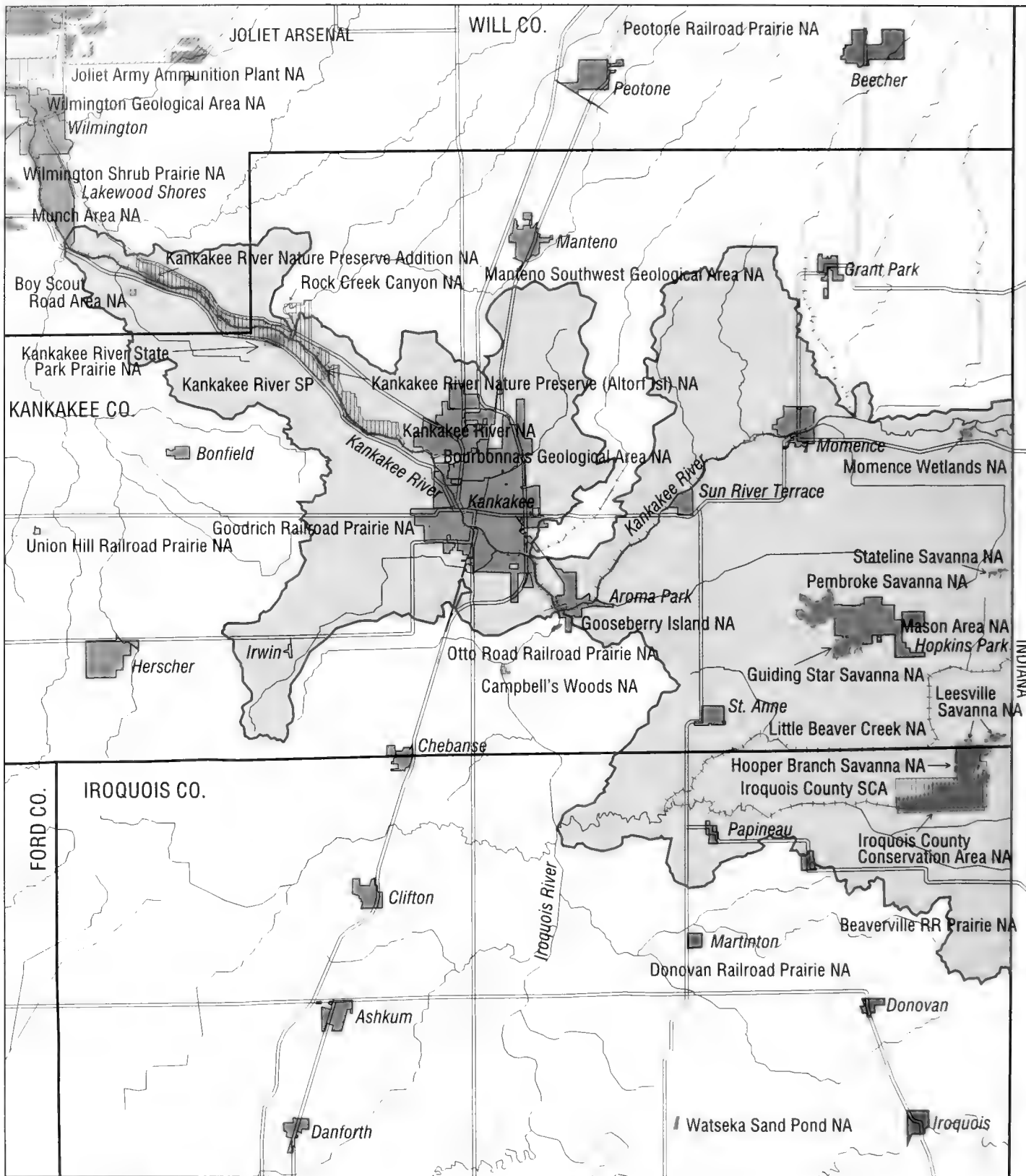
**NATURAL DIVISIONS** ♦ This site lies entirely within the Grand Prairie Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LAND

|   |         |
|---|---------|
| Total Acreage                           | 231,005 |
| Natural Areas                           |         |
| Acreage                                 | 6,731   |
| Number                                  | 17      |
| Biologically Significant Stream Mileage | 63.3    |
| Natural Heritage Sites                  | 67      |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 1       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |

|   |   |
|---|---|
| Acreage   | 6,415                                   |
| Percentage of RRA                                 | 2.8                                     |
| Federal Land                                      |   |
| Acreage   | 0                                       |
| Percentage of RRA                                 | 0.0                                     |
| <b>LANDCOVER</b>                                  | <u>Acres</u> <u>% of RRA</u>            |
| Upland forest                                     | 12,558.11      5.44                     |
| Bottomland forest                                 | 3,603.51      1.56                      |
| Wetland- nonforested                              | 1,986.61      0.86                      |
| Grassland   | 44,240.49      19.15                    |
| Cropland  | 149,688.50      64.80                   |
| Urban/Built-up                                    | 15,551.07      6.73                     |
| Water   | 3,383.74      1.46                      |
| TOTAL   | 231,012.03      100.00                  |
| <b>ILLINOIS NATURAL AREAS INVENTORY SITES</b>     | <u>Acres</u>                            |
| Bourbonnais Geological Area                       | 12                                      |
| Boy Scout Road Area                               | 42                                      |
| Guiding Star Savanna                              | 406                                     |
| Hooper Branch Savanna                             | 783                                     |
| Iroquois County Conservation Area                 | 1,609                                   |
| Kankakee River                                    | 2,115                                   |
| Kankakee River Nature Preserve (Altorf Island)    | 65                                      |
| Kankakee River Nature Preserve Addition           | 124                                     |
| Kankakee River State Park Prairie                 | 199                                     |
| Leesville Savanna East                            | 97                                      |
| Leesville Savanna West                            | 32                                      |
| Little Beaver Creek                               | 323                                     |
| Mason Area  | <1                                      |
| Momence Wetlands                                  | 94                                      |
| Pembroke Savanna                                  | 755                                     |
| Rock Creek Canyon                                 | 2                                       |
| Stateline Savanna                                 | 72                                      |
| <b>BIOLOGICALLY SIGNIFICANT STREAMS</b>           | <u>Miles</u>                            |
| Baker Creek, Exline to Kankakee River             | 0.0                                     |
| Beaver Creek                                      | 11.4                                    |
| Kankakee River, Momence to Des Plaines Cons. Area | 35.0                                    |
| Little Beaver Cr., state line to SE of St. Anne   | 16.8                                    |
| Trim Creek, Grant Park to Kankakee River          | 0.0                                     |
| <b>NATURAL HERITAGE CATEGORIES</b>                |   |
| <b>Communities</b>                                | <u>Occurrences</u> <u>Types/Species</u> |
| Floodplain Forest                                 | 1      1                                |
| Lake  | 2      1                                |
| Wetland   | 6      4                                |
| Forest  | 1      1                                |
| Savanna   | 12      2                               |
| Prairie   | 5      5                                |
| <b>Threatened and Endangered Animals</b>          |   |
| Bird  | 4      3                                |
| Fish  | 10      4                               |
| Mollusk   | 4      2                                |
| <b>Threatened and Endangered Plants</b>           |   |
| Plant-Dicot                                       | 14      11                              |

In the six miles from the Illinois-Indiana border to Momence lie 1,800 acres of one of the largest wetland areas in Illinois, the Momence Wetlands. These are a remnant of a vast 400,000-acre wetland that stretched east from Momence to South Bend, Indiana. Presidents Grover Cleveland and Theodore Roosevelt, as well as European nobility, hunted in the marsh before it was drained in 1917. West of Momence, the Kankakee River is a scenic, recreational resource flowing on or near bedrock with numerous riffles, pools, and islands for much of its length.



## Kankakee-Iroquois

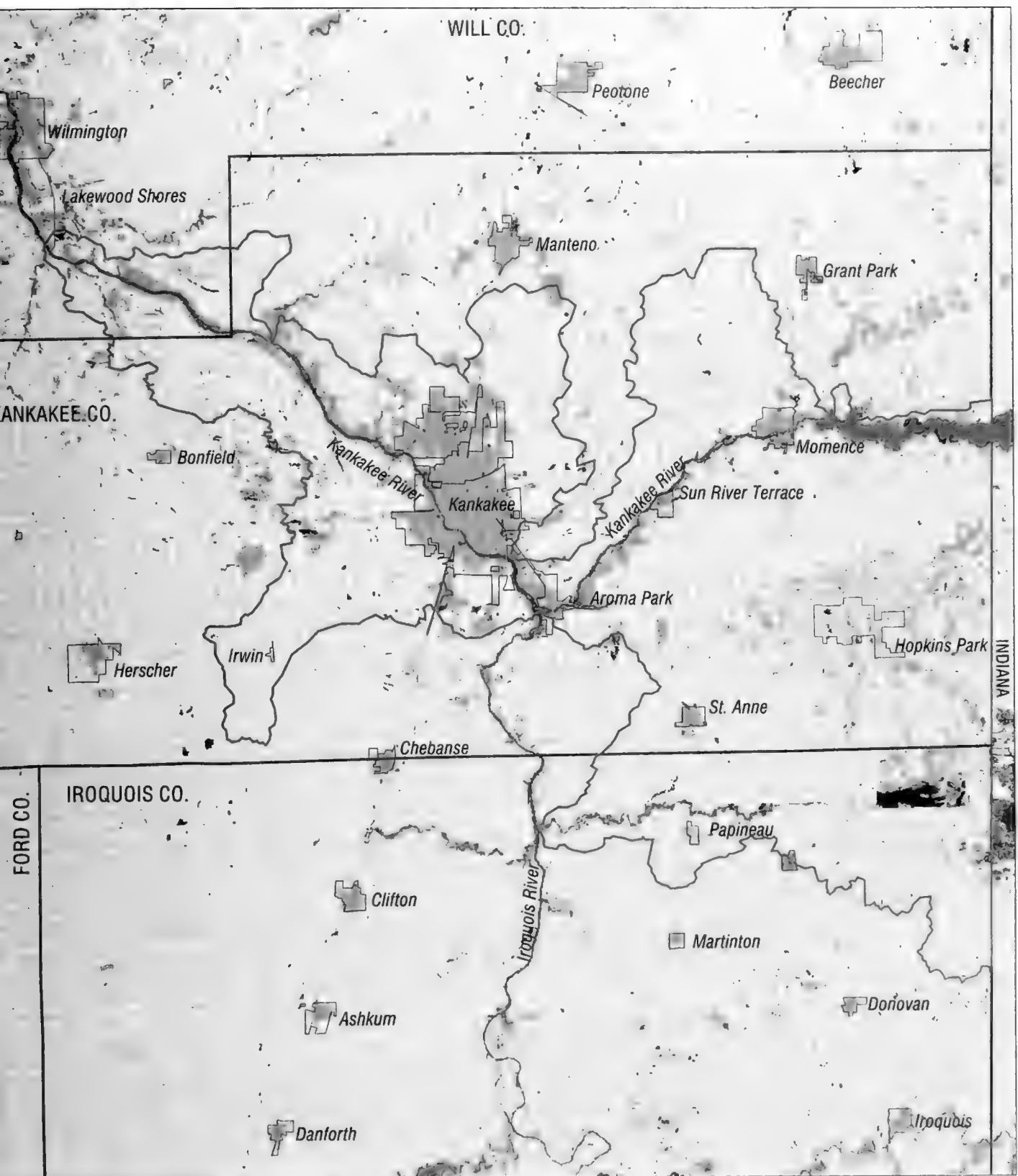
- Natural Area
- Town
- State Land
- Federal Land

- Stream
- Significant Stream
- Highway
- County

5 Miles







### Kankakee-Iroquois

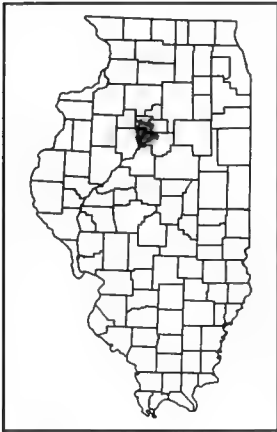
- |   |  |
|---|--|
|  Upland Forest           |  Cropland       |
|  Bottomland Forest/Swamp |  Water          |
|  Nonforested Wetland     |  Urban/Built up |
|  Grassland               |  |

5 Miles

One of the principal sand areas in Illinois is found in Kankakee and Iroquois counties. The area is the ancient bed of a large glacial lake. Dunes (some reaching almost 700 feet in height) and swales characterize the area. Sand savanna, sand prairie, and pin oak flatwoods are some of the interesting communities found here. The sandy bottom streams support fish species, such as the ironcolor shiner and weed shiner, that are rare in Illinois. The Kankakee River has one of the most diverse and abundant mussel populations in the state.

|  |                    |              |
|--|--------------------|--------------|
| Plant-Monocot                                    | 6                  | 5            |
| Plant-Fern/Fern Ally                             | 1                  | 1            |
| NATURAL HERITAGE CATEGORIES ( <i>continued</i> ) | <u>Occurrences</u> | <u>Types</u> |
| Geological Feature                               |                    |              |
| Geological Feature                               | 1                  | 1            |
| Other  |                    |              |
| STATE AND FEDERAL LAND                           |                    |              |
| State Parks                                      |                    | <u>Acres</u> |
| Kankakee River                                   |                    | 3,910        |
| State Conservation Areas                         |                    |              |
| Iroquois County                                  |                    | 2,505        |
| State Forests                                    |                    | 0            |
| State Fish and Wildlife Areas                    |                    | 0            |
| Federal Land                                     |                    | 0            |
| ILLINOIS NATURE PRESERVES                        |                    | <u>Acres</u> |
| Hooper Branch Savanna                            |                    | 499          |
| Kankakee River                                   |                    | 119          |
| Momence Wetlands                                 |                    | 59           |
| NATURAL DIVISIONS                                | Acres              | % of         |
|  | <u>in RRA</u>      | <u>RRA</u>   |
| Grand Prairie                                    | 230,129            | 100.0        |





## PEORIA WILDS

*Peoria Wilds encompasses the floodplain of the Illinois River, deeply dissected bluffs and hills bordering the floodplain, and relatively flat agricultural areas away from the river. A large tract of forest runs along the bluff to the west of the Illinois River. Nonforested wetlands are concentrated next to the river.*

**LANDCOVER** ♦ Cropland (46%) is the predominant landcover type at this site, followed by upland woods (20%) and grassland (16%). It ranks low in the percentage of nonforested wetland and has moderate bottomland percentages. The relatively high percentage of water is due to the large lakes associated with the

Illinois River and floodplain.

**NATURAL AREAS** ♦ Woodlands, hill prairies, marshes, fens, and seeps are some of the important natural resources in the 24 Natural Areas located in this RRA.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams in this RRA.

**HERITAGE SITES** ♦ Of the 51 Heritage sites, nearly half are occurrences of significant communities of wetlands, forest, savanna, and prairie. Six plant species, four animal species, one forest block greater than 500 acres, and one rookery occur in this RRA.

**STATE AND FEDERAL LANDS** ♦ Four state conservation areas and one fish and wildlife area comprise the state land in the RRA. A unit of the Chautauqua National Wildlife Refuge is located here. These public lands are associated directly with the Illinois River.

**NATURE PRESERVES** ♦ Seven sites are recognized as Nature Preserves. The natural resources includes seeps, fens, hill prairies, and upland forest in deep ravines and on slopes and ridges.

**NATURAL DIVISIONS** ♦ The natural divisions occurring in the RRA are the Grand Prairie (62%), Upper Mississippi River and Illinois River Bottomlands (30%), and the Illinois River and Mississippi River Sand Areas (7.5%).

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 277,847 |
| Natural Areas                           |         |
| Acreage                                 | 1,859   |
| Number                                  | 24      |
| Biologically Significant Stream Mileage | 0       |
| Natural Heritage Sites                  | 51      |
| State Land                              |         |
| State Parks                             | 0       |
| State Conservation Areas                | 4       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 1       |
| Acreage                                 | 9,570   |
| Percentage of RRA                       | 3.4     |

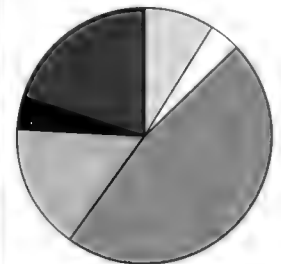
### Size:

277,847 acres  
434 square miles

### Location:

Central Illinois on the Illinois River, Peoria area; Marshall, Peoria, Putnam, Stark, Tazewell, and Woodford counties

### Landcover at a Glance



upland forest 20%  
bottomland forest 4%  
wetland <1%  
grassland 16%  
cropland 46%  
urban built-up 4%  
water 9%

**T**he bluffs on the Illinois River near Peoria were a mix of oak woodlands and prairie openings in the early 1800s. One of the largest remaining oak woodland areas in Illinois is found here. The bluffs at Forest Park Nature Preserve provide a good example of the original vegetation, although the area was lumbered in the mid-1800s. White oak and shagbark hickory predominate on the drier, upper slopes and ridges; red oak and sugar maple characterize the lower slopes and ravines.

SUMMARY OF SITE CHARACTERISTICS (*continued*)

|                      |                  |                 |
|----------------------|------------------|-----------------|
| Federal Land         |                  |                 |
| Acreage              |                  | 1,589           |
| Percentage of RRA    |                  | 0.6             |
| LANDCOVER            | <u>Acres</u>     | <u>% of RRA</u> |
| Upland forest        | 55,789.44        | 20.08           |
| Bottomland forest    | 10,384.24        | 3.74            |
| Wetland- nonforested | 1,205.25         | 0.43            |
| Grassland            | 44,725.80        | 16.10           |
| Cropland             | 128,441.00       | 46.23           |
| Urban/Built-up       | 11,740.22        | 4.23            |
| Water                | <u>25,567.61</u> | <u>9.20</u>     |
| Total                | 277,853.56       | 100.01          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|  |              |
|--|--------------|
|  | <u>Acres</u> |
| Blalock Creek Site                             | 10           |
| Boys Hollow Woods                              | 41           |
| Brown Run-Billsbach Lake                       | 2            |
| Caterpillar Hill Prairies                      | 10           |
| Cooper Park North                              | 5            |
| County Line Hill Prairie                       | 83           |
| Crow Creek Marsh                               | 47           |
| Detweiller Park                                | 351          |
| Dickison Run Hill Prairie                      | 13           |
| Fondulac Seep                                  | 16           |
| Forest Park                                    | 502          |
| Grandview Woods                                | 60           |
| Hancher Woods                                  | 21           |
| Hopewell Estates Hill Prairie                  | 78           |
| Leigh Woods                                    | 41           |
| Marshall County Conservation Area Hill Prairie | 53           |
| Mossville Road Hill Prairie                    | 7            |
| Partridge Creek Marsh                          | 5            |
| Robinson Park Hill Prairie                     | 150          |
| Root Cemetery                                  | 1            |
| Sparland Unit                                  | 17           |
| Spring Bay Fen                                 | 57           |
| Springdale Cemetery                            | 253          |
| Wokanda Camp                                   | 34           |

## BIOLOGICALLY SIGNIFICANT STREAMS

None

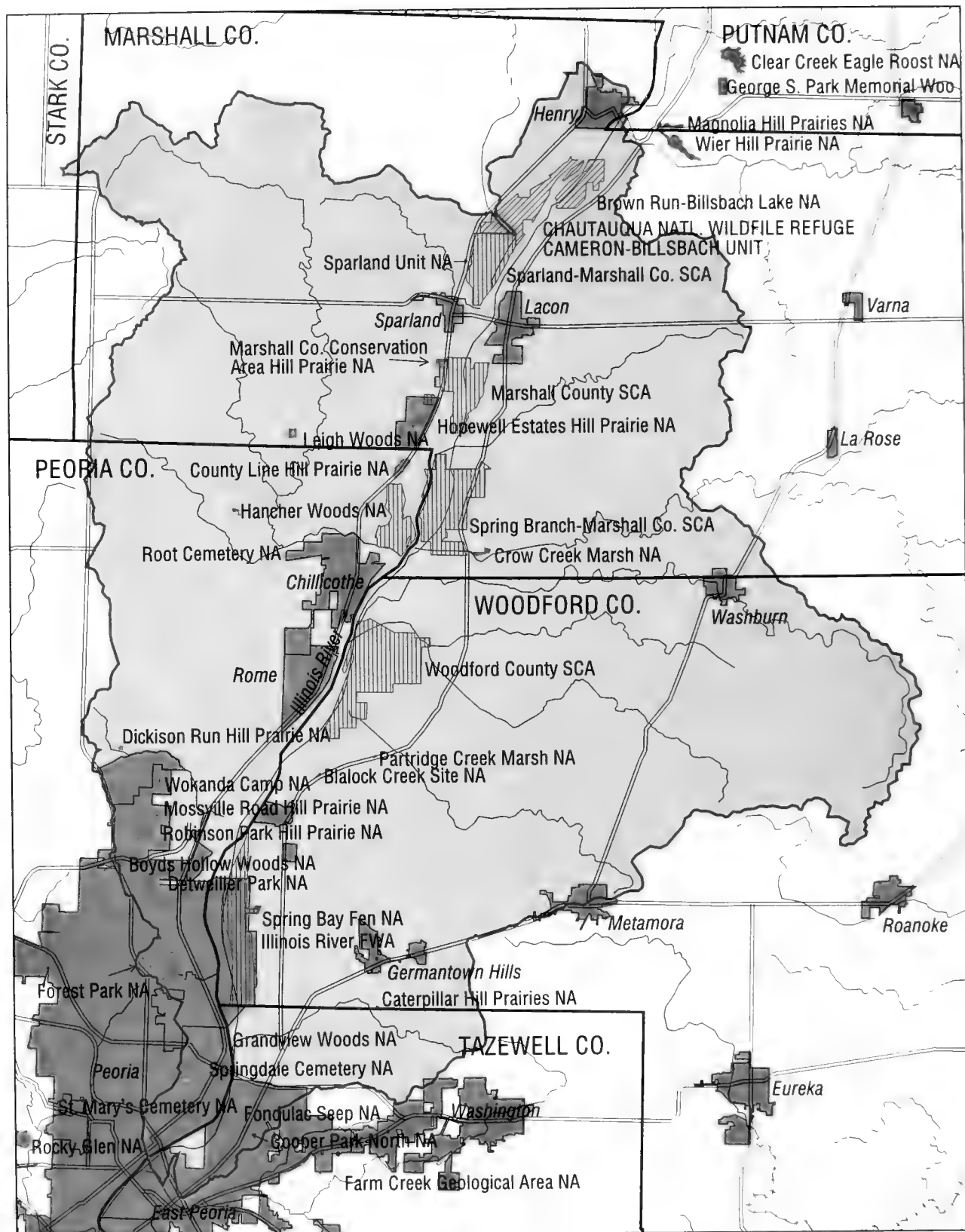
## NATURAL HERITAGE CATEGORIES

|                                   |                    |                      |
|-----------------------------------|--------------------|----------------------|
| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
| Wetland                           | 6                  | 3                    |
| Forest                            | 6                  | 2                    |
| Savanna                           | 2                  | 2                    |
| Prairie                           | 9                  | 1                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 5                  | 4                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 20                 | 5                    |
| Plant-Monocot                     | 1                  | 1                    |

|   |               |            |                 |
|---|---------------|------------|-----------------|
| Geological Feature                      |               |            |                 |
| Other                                   |               |            |                 |
| Forest Block >500 Acres                 | 1             |            | 1               |
| Rookery                                 | 1             |            | 1               |
| STATE AND FEDERAL LANDS                 |               |            | <u>Acres</u>    |
| State Parks                             |               |            | 0               |
| State Conservation Areas                |               |            |                 |
| Marshall County                         |               |            | 3,232           |
| Sparland-Marshall County                |               |            | 1,077           |
| Spring Branch-Marshall County           |               |            | 780             |
| Woodford County                         |               |            | 2,806           |
| State Forests                           |               |            | 0               |
| State Fish and Wildlife Areas           |               |            |                 |
| Illinois River                          |               |            | 1,674           |
| Federal Land                            |               |            |                 |
| Chautauqua NWR Cameron-Billsbach Unit   |               |            | 1,589           |
| ILLINOIS NATURE PRESERVES               |               |            | <u>Acres</u>    |
| Bennett's Terraqueous Gardens           |               |            | 3               |
| Detweiller Woods                        |               |            | 290             |
| Forest Park                             |               |            | 379             |
| Forest Park South                       |               |            | 130             |
| Robinson Park Hill Prairies             |               |            | 137             |
| Root Cemetery Savanna                   |               |            | 1               |
| Spring Bay Fen                          |               |            | 31              |
| NATURAL DIVISIONS                       | Acres         | % of       | % of            |
|   | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Grand Prairie                           | 172,861       | 62.2       | 1.3             |
| Upper Mississippi R and Illinois R      |               |            |                 |
| Bottomlands                             | 84,094        | 30.3       | 7.1             |
| Illinois R and Mississippi R Sand Areas | 20,893        | 7.5        | 5.4             |





( 3 )

Several hill prairies in this area have been included in the Illinois Natural Areas Inventory. The sun- and wind-exposed west and southwest-facing slopes of hill prairies create a harsh environment more suited to prairie than forest. Few hill prairies have been plowed because of their steep slopes, but they are sometimes grazed.



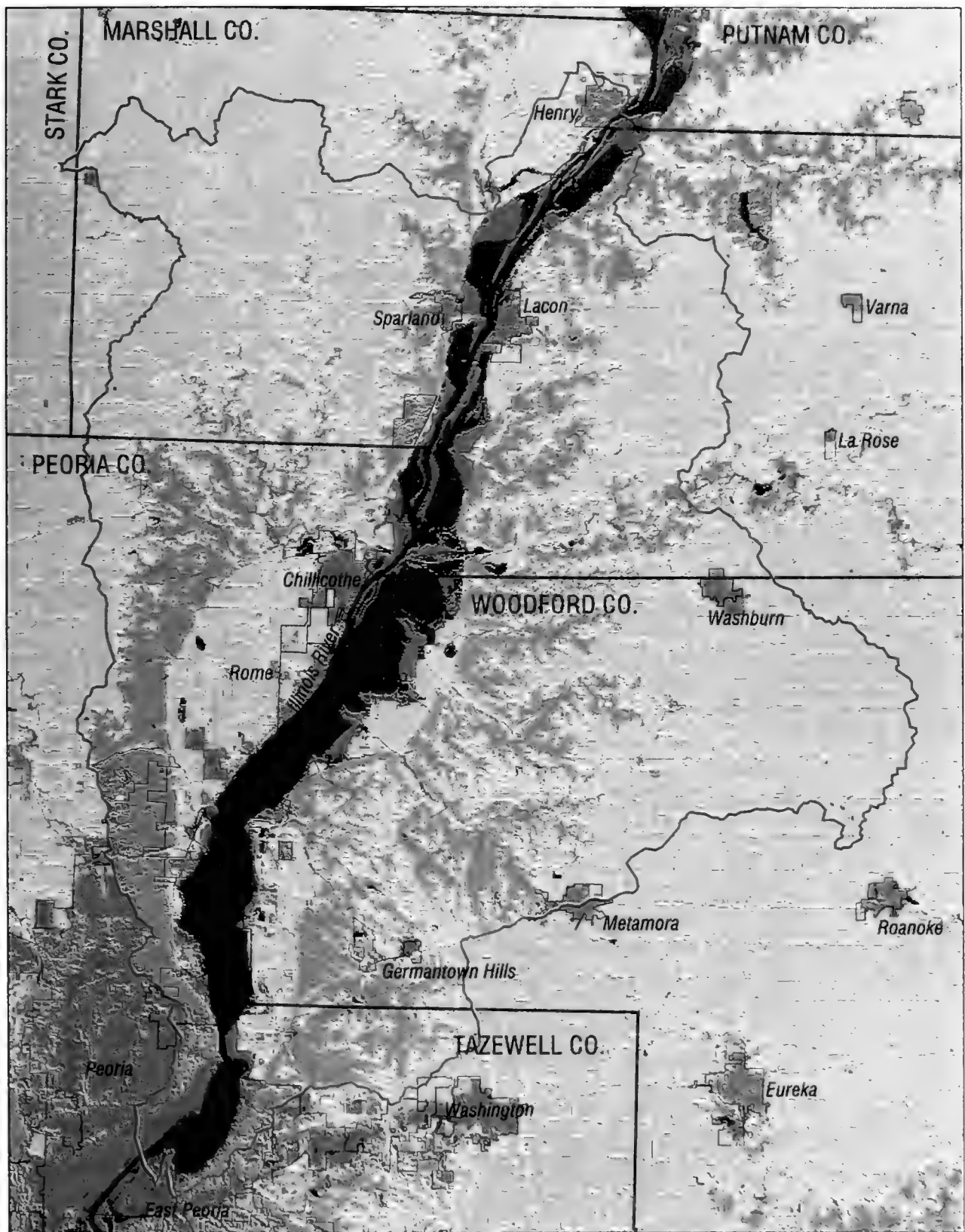
## Peoria Wilds

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

4 Miles

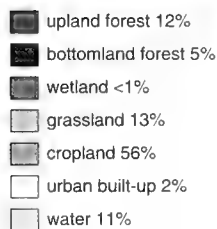
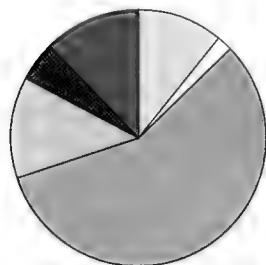




**Size:**  
150,316 acres  
235 square miles

**Location:**  
Western Illinois on  
the Mississippi  
River; Hancock  
and Henderson  
counties

Landcover at a Glance



## NAUVOO

*The Nauvoo RRA is located in west-central Illinois on the Mississippi River. Sharply dissected bluffs divide the low, level bottomlands along the river from the higher rolling uplands. The natural resources—woodlands, wetlands, and larger Natural Areas—are mainly associated with the river.*

**LANDCOVER** ♦ Cropland is the predominant landcover type (56%) within this site. Approximately 17% of the RRA is wooded (12% upland and 5% bottomland woods). Nonforested wetlands are not abundant. The Mississippi River accounts for the high percentage of water.

**NATURAL AREAS** ♦ There are nine Natural Areas which range from a four-acre hill prairie site to a 3,856 acre forest tract (Cedar Glen). Natural resources in these areas include aquatic systems, forested bluffs, sand hills, and geological features.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams in this RRA.

**HERITAGE SITES** ♦ Thirty-six Heritage sites occur within the RRA. Seven significant community types, two plant species, 11 animal species, and two rookeries are represented.

**STATE AND FEDERAL LAND** ♦ Nauvoo State Park is the only state or federal land in the RRA.

**NATURE PRESERVES** ♦ Two Nature Preserves exist in this RRA. They protect a large forested tract surrounded by cropland and sand hills which support upland forest and prairie communities.

**NATURAL DIVISIONS** ♦ This RRA is comprised of five natural divisions, approximately half lies in the Middle Mississippi Border Natural Division. The Upper Mississippi and Illinois River Bottomlands, Western Forest-Prairie, and Illinois and Mississippi River Sand Areas divisions comprise 14%, 13%, and 12%, respectively, of the RRA.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 150,316 |
| Natural Areas                           |         |
| Acreage                                 | 7,409   |
| Number                                  | 9       |
| Biologically Significant Stream Mileage | 0       |
| Natural Heritage Sites                  | 36      |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |
| Acreage                                 | 140     |
| Percentage of RRA                       | 0.1     |





|                   |     |
|-------------------|-----|
| Federal Land      | 0   |
| Acreage           | 0.0 |
| Percentage of RRA | 0.0 |

| LANDCOVER            | <u>Acres</u>     | <u>% of RRA</u> |
|----------------------|------------------|-----------------|
| Upland forest        | 18,298.16        | 12.17           |
| Bottomland forest    | 8,029.53         | 5.34            |
| Wetland- nonforested | 516.42           | 0.34            |
| Grassland            | 19,645.11        | 13.07           |
| Cropland             | 84,511.98        | 56.22           |
| Urban/Built-up       | 2,884.98         | 1.92            |
| Water                | <u>16,423.34</u> | <u>10.93</u>    |
| TOTAL                | 150,309.52       | 99.99           |

| ILLINOIS NATURAL AREAS INVENTORY SITES | <u>Acres</u> |
|--|--------------|
| Cedar Glen Area                        | 3,856        |
| Gladstone Lake                         | *            |
| Jackson Cemetery Geological Area       | 7            |
| Mississippi River -Drew Chute          | 1,218        |
| Mississippi River -Pontoosuc           | 1,189        |
| Mt. Moriah Geological Area             | 7            |
| New Crystal Lake Club                  | 1,123        |
| Tyson South Geological Area            | 5            |
| Waggoner Creek Hill Prairie            | 4            |

\* = point location, map not available

BIOLOGICALLY SIGNIFICANT STREAMS  
None

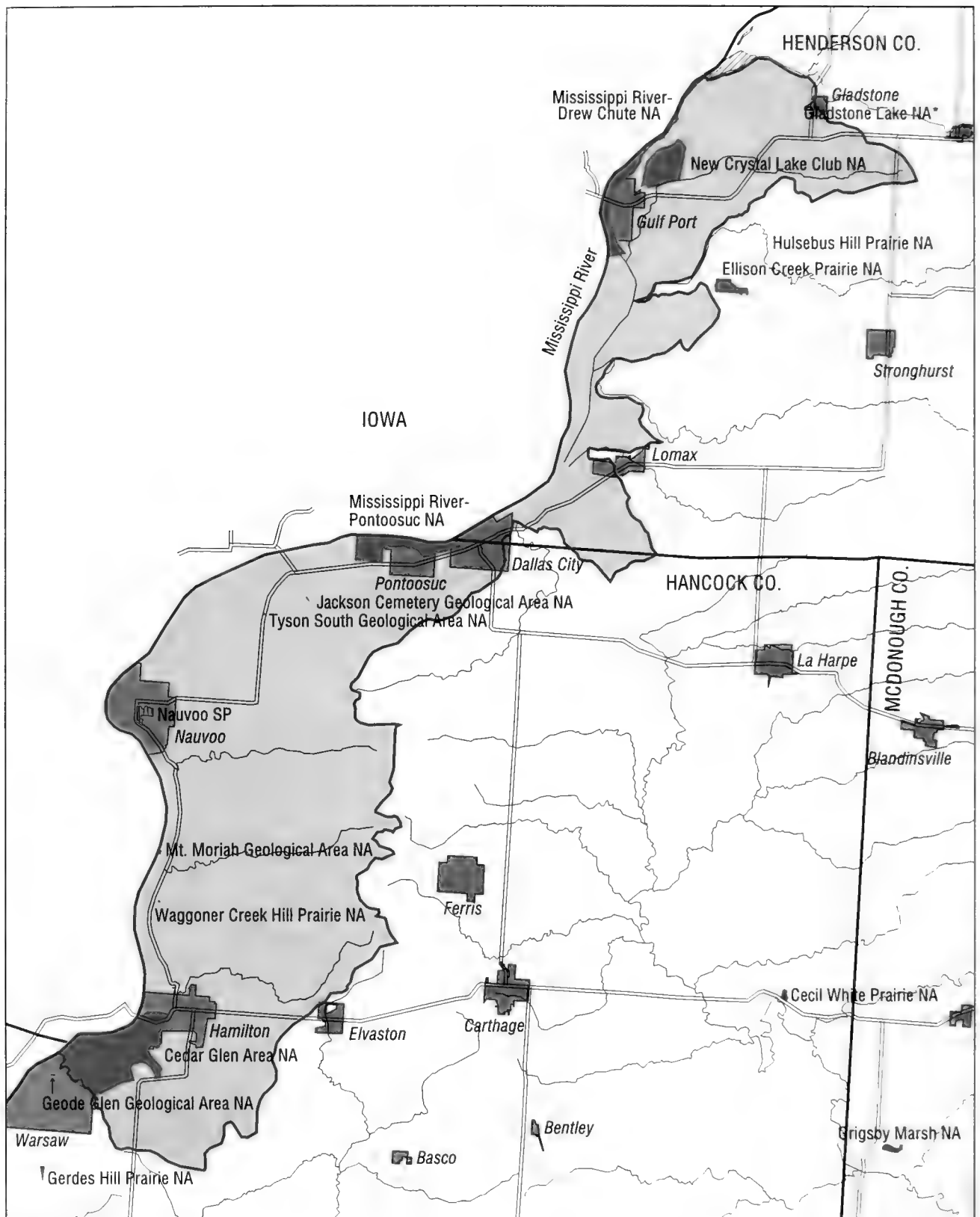
#### NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Floodplain Forest                 | 1                  | 1                    |
| Wetland                           | 1                  | 1                    |
| Savanna                           | 3                  | 3                    |
| Prairie                           | 2                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 8                  | 2                    |
| Fish                              | 2                  | 2                    |
| Mammal                            | 2                  | 1                    |
| Reptile                           | 2                  | 2                    |
| Mollusk                           | 6                  | 4                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Monocot                     | 2                  | 2                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 5                  | 1                    |
| Other                             |                    |                      |
| Rookery                           | 2                  | 1                    |




#### STATE AND FEDERAL LAND

| State Parks                   | <u>Acres</u> |
|-------------------------------|--------------|
| Nauvoo                        | 140          |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas | 0            |
| Federal Land                  | 0            |

**C**edar Glen is a large, forested tract along the bluffs of the Mississippi River. The rugged bluffs are mostly mature second growth forest dominated by oak, hickory, sugar maple, and basswood. This Nature Preserve is a significant roosting site for wintering bald eagles.



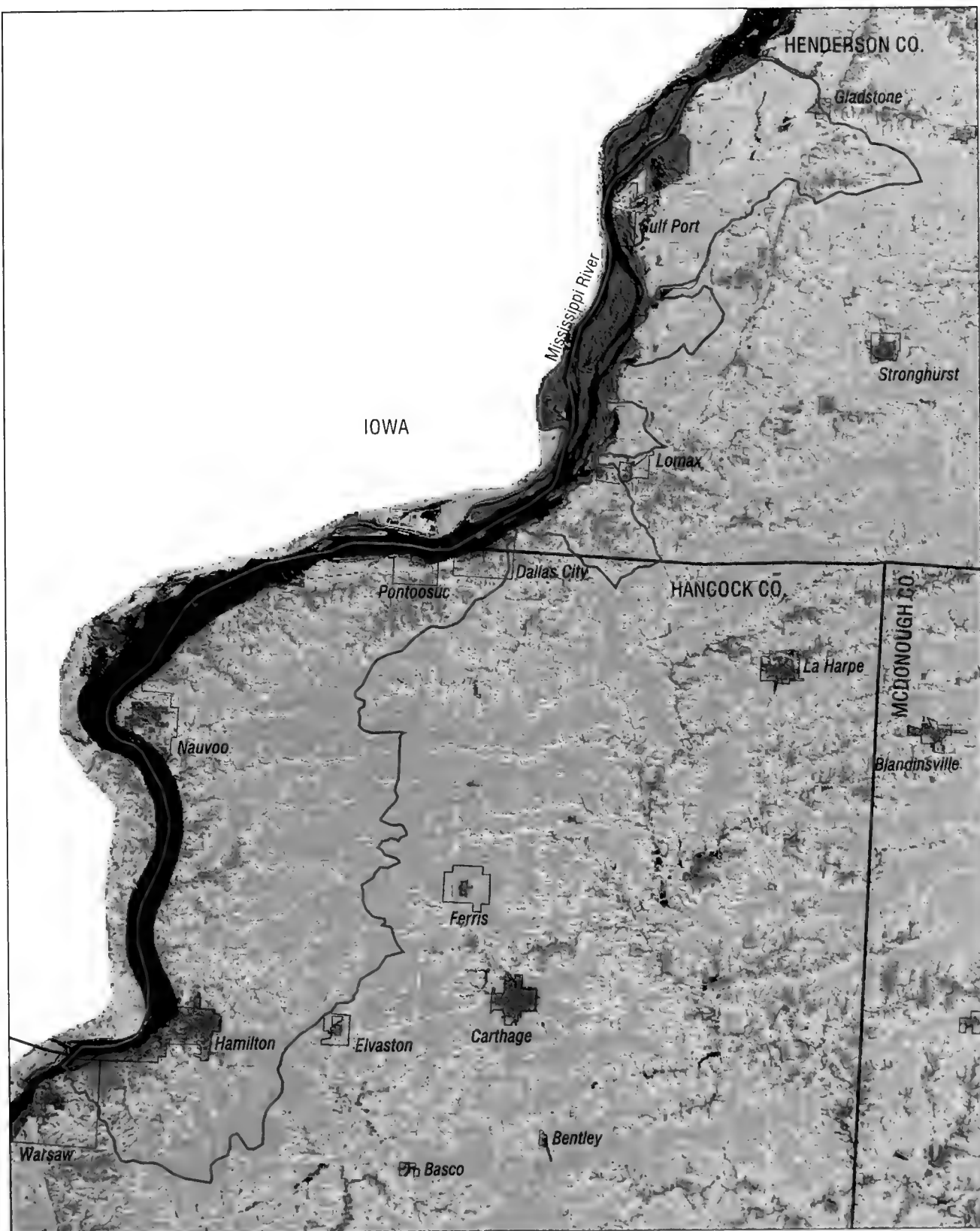
## Nauvoo

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

5 Miles





# Nauvoo



5 Miles



**N**auvoo is probably most noteworthy for its history tied to the Church of Jesus Christ of Latter Day Saints (Mormons). From 1839 to 1846 Nauvoo was the religious, governmental, and cultural center of the Mormons. With 12,000 inhabitants in 1844, it was one of the largest cities in Illinois.

## ILLINOIS NATURE PRESERVES

Cedar Glen

Mississippi River Sand Hills

Acres

191

53

## NATURAL DIVISIONS

Acres

% of

% of

in RRARRADivision

Middle Mississippi Border

75,445

51.8

4.9

Upper Mississippi R

and Illinois R Bottomlands

20,353

14.0

1.7

Western Forest-Prairie

18,802

12.90

.4

Illinois R and Mississippi R Sand Areas

17,266

11.9

4.5

Major Water Bodies

13,800

9.5

1.1



## MACKINAW RIVER

*The most significant feature of this RRA is the Mackinaw River and its tributary, Panther Creek. The waters flow clear in a series of pools and riffles over a sand-gravel-silt substrate. The banks are generally forested and the surrounding area is agricultural.*

**LANDCOVER** ♦ Cropland is the predominant landcover (66% of the area); this site has the fourth largest percentage of cropland of the RRAs. The rankings for percentage of upland woods, nonforested wetlands, bottomland woods, and Natural Areas acreage are relatively low.

**NATURAL AREAS** ♦ There are four Natural Areas in this RRA. The two largest sites are a wooded tract along the river and the Mackinaw River itself. Two small sites include a hill prairie and a geological area.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Three stream segments totalling 27 miles are designated as BSS streams in this RRA, including a 16 mile portion of the Mackinaw River and 8.5 miles of Panther Creek.

**HERITAGE SITES** ♦ Seven Heritage sites occur in the RRA. One significant community, two plant species, and one animal species are recognized.

**STATE AND FEDERAL LAND** ♦ The Mackinaw River Fish and Wildlife Area is the only state land. There is no federal land within this RRA.

**NATURE PRESERVES** ♦ Two Nature Preserves are located in the RRA. Parklands Nature Preserve was established to protect a species of aquatic vegetation in the Mackinaw River and its surrounding forest. Mehl's Bluff is a diverse site of upland and bottomland forest, seep, and creek communities located on a bluff of the Mackinaw River.

**NATURAL DIVISIONS** ♦ The Mackinaw River RRA lies within the Grand Prairie Division.

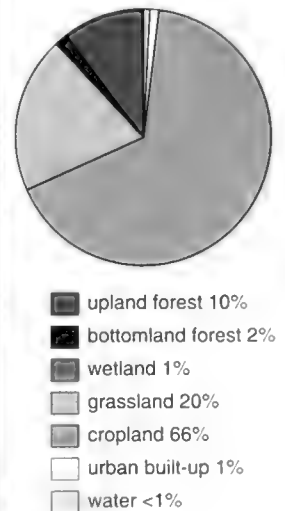
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

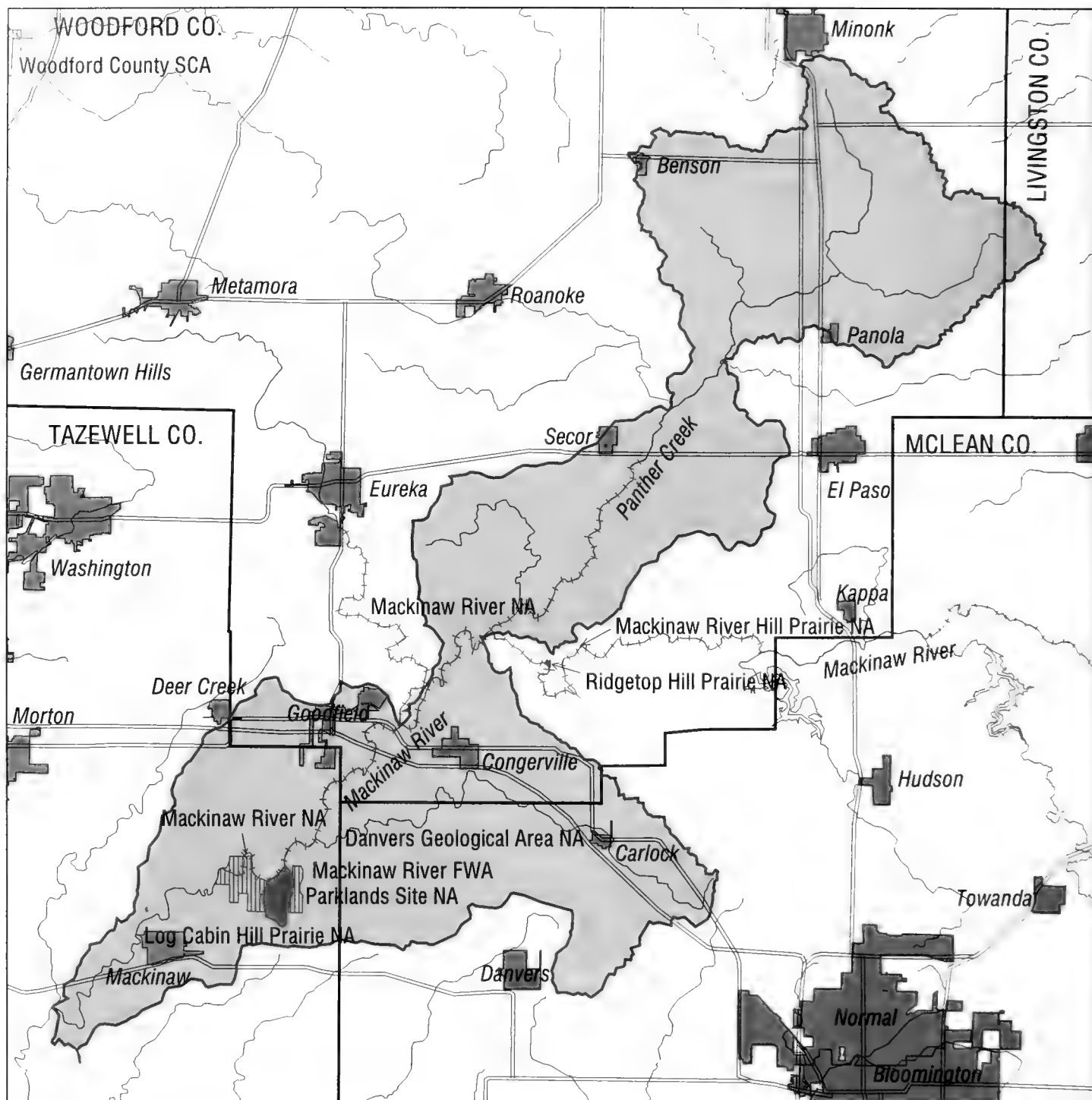
|   |         |
|---|---------|
| Total Acreage                           | 125,008 |
| Natural Areas                           |         |
| Acreage                                 | 1,139   |
| Number                                  | 4       |
| Biologically Significant Stream Mileage | 26.9    |
| Natural Heritage Sites                  | 7       |
| State Land                              |         |
| State Parks                             | 0       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 1       |
| Acreage                                 | 1,397   |
| Percentage of RRA                       | 1.1     |
| Federal Land                            |         |
| Acreage                                 | 0       |

**Size:**  
125,008 acres  
195 square miles





**Location:**  
Central Illinois;  
Livingston, McLean,  
Tazewell, and  
Woodford counties





Landcover at a Glance





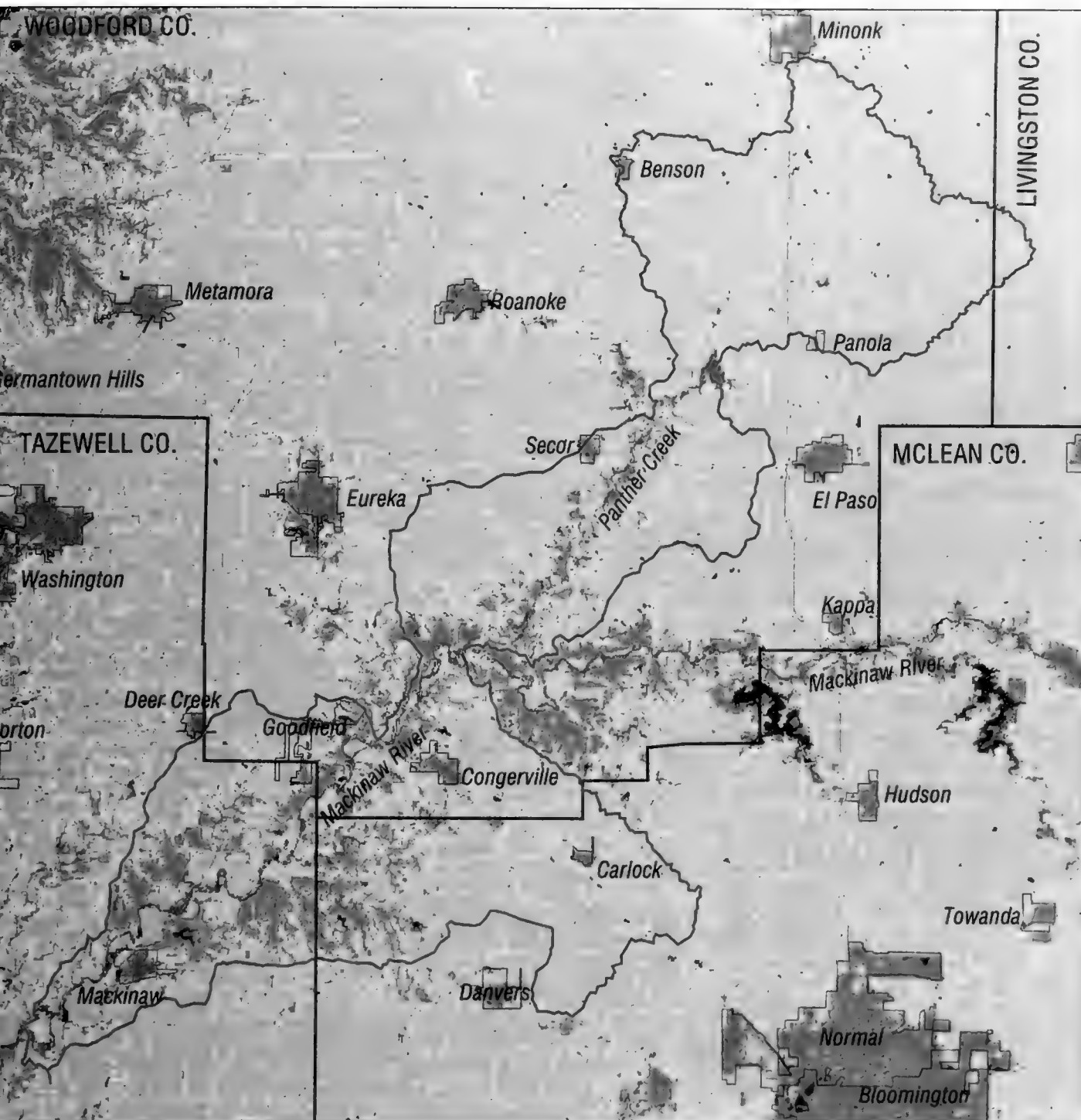
## Mackinaw River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

4 Miles





## Mackinaw River



4 Miles

**S**ignificant portions of the Mackinaw River and some of its tributaries are considered outstanding aquatic resources in Illinois. The Mackinaw River is characterized by a series of pools and fast riffles flowing over predominantly sand and gravel substrate and by banks which are largely forested. Water quality is high and mussel populations are diverse. Heartleaf plantain, an endangered plant in Illinois, is found here. This species occurs in gravelly streambeds and groundwater seeps and springs adjacent to streams.

Federal Land (*continued*)  
Percentage of RRA

0.0

| LANDCOVER            | <u>Acres</u>    | <u>% of RRA</u> |
|----------------------|-----------------|-----------------|
| Upland forest        | 12,641.40       | 10.11           |
| Bottomland forest    | 1,924.99        | 1.54            |
| Wetland- nonforested | 253.29          | 0.20            |
| Grassland            | 24,501.65       | 19.60           |
| Cropland             | 82,789.90       | 66.23           |
| Urban/Built-up       | 1,672.10        | 1.34            |
| Water                | <u>1,228.53</u> | <u>0.98</u>     |
| TOTAL                | 125,011.86      | 100.00          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

Acres

|                         |     |
|-------------------------|-----|
| Danvers Geological Area | 2   |
| Log Cabin Hill Prairie  | 7   |
| Mackinaw River          | 484 |
| Parklands Site          | 645 |

## BIOLOGICALLY SIGNIFICANT STREAMS

Miles

|  |      |
|--|------|
| Mackinaw River, Alloway Creek to Mclean Co. line | 15.8 |
| Panther Creek, Rte 24 to Mackinaw River          | 8.5  |
| unnamed, Mackinaw Twp, Tazewell County           | 2.6  |

## NATURAL HERITAGE CATEGORIES

|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Prairie                           | 1                  | 1                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 1                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 2                  | 1                    |
| Plant-Monocot                     | 1                  | 1                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 2                  | 1                    |
| Other                             |                    |                      |

## STATE AND FEDERAL LAND

Acres

|                               |       |
|-------------------------------|-------|
| State Parks                   | 0     |
| State Conservation Areas      | 0     |
| State Forests                 | 0     |
| State Fish and Wildlife Areas |       |
| Mackinaw River                | 1,397 |
| Federal Land                  | 0     |

## ILLINOIS NATURE PRESERVES

Acres

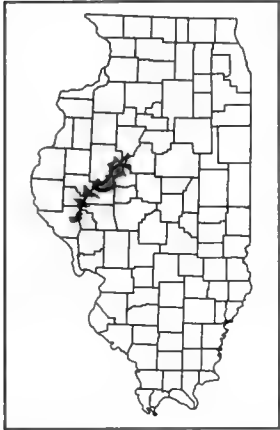
|              |    |
|--------------|----|
| Mehl's Bluff | 27 |
| Parklands    | 40 |

## NATURAL DIVISIONS

|               | <u>Acres</u><br><u>in RRA</u> | <u>% of</u><br><u>RRA</u> | <u>% of</u><br><u>Division</u> |
|---------------|-------------------------------|---------------------------|--------------------------------|
| Grand Prairie | 125,009                       | 100.0                     | 1.0                            |







## MIDDLE ILLINOIS RIVER

*The Middle Illinois River RRA incorporates floodplain and upland landscapes along the Illinois River from just below Peoria to Florence. The Middle Illinois River site is the third largest of the RRAs. The boundary was modified for this site to include watersheds with sand prairies. Significant amounts of state land occur in this RRA.*

**LANDCOVER** ♦ Cropland is the predominant land cover, accounting for half the land area in this RRA. Approximately 22% of the Middle Illinois River RRA is either upland or bottomland woods. This site has the third

highest acreages of nonforested wetlands and bottomland forest.

**NATURAL AREAS** ♦ Thirty-eight Natural Area sites are located in the RRA, totalling the sixth highest percentage of natural area acreage among the RRAs. Prominent natural features include sand prairies, hill prairies, springs, seeps, savannas, ponds, lakes, woods, and habitats for herons, eagles, and the Illinois Mud Turtle. Forty-three percent of the total acreage occurs at Meredosia Refuge Natural Area.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams within this RRA.

**HERITAGE SITES** ♦ There are 134 Heritage sites within this RRA. Nine significant community types, 19 plant species, 22 animal species occur here. Three large forest tracts and three rookeries are located in this RRA.

**STATE AND FEDERAL LAND** ♦ Approximately 9% (53,129 acres) of the RRA is in state (5.5%) or federal (3.7%) ownership. This site ranks first for acreage in state ownership. There are nine state holdings—one state park, five conservation areas, one forest, and two fish and wildlife areas. Emiquon, Chautauqua and Meredosia National Wildlife Refuges are federal lands located here.

**NATURE PRESERVES** ♦ The six Nature Preserves located in the Middle Illinois River RRA protect sand prairie, hill prairie, wet prairie, and savanna communities. The largest is the Sand Prairie-Scrub Oak Nature Preserve, an approximately 1,400 acre site of sand prairie, sand savanna, and sand forest.

**NATURAL DIVISIONS** ♦ The site encompasses five natural divisions. Most of the RRA is comprised of the Upper Mississippi and Illinois River Bottomlands (42%), Illinois and Mississippi River Sand Areas (26%), and Western Forest-Prairie (24%) Divisions.

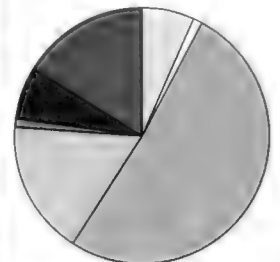
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 575,515 |
| Natural Areas                           |         |
| Acreage                                 | 13,474  |
| Number                                  | 38      |
| Biologically Significant Stream Mileage | 0       |
| Natural Heritage Sites                  | 134     |

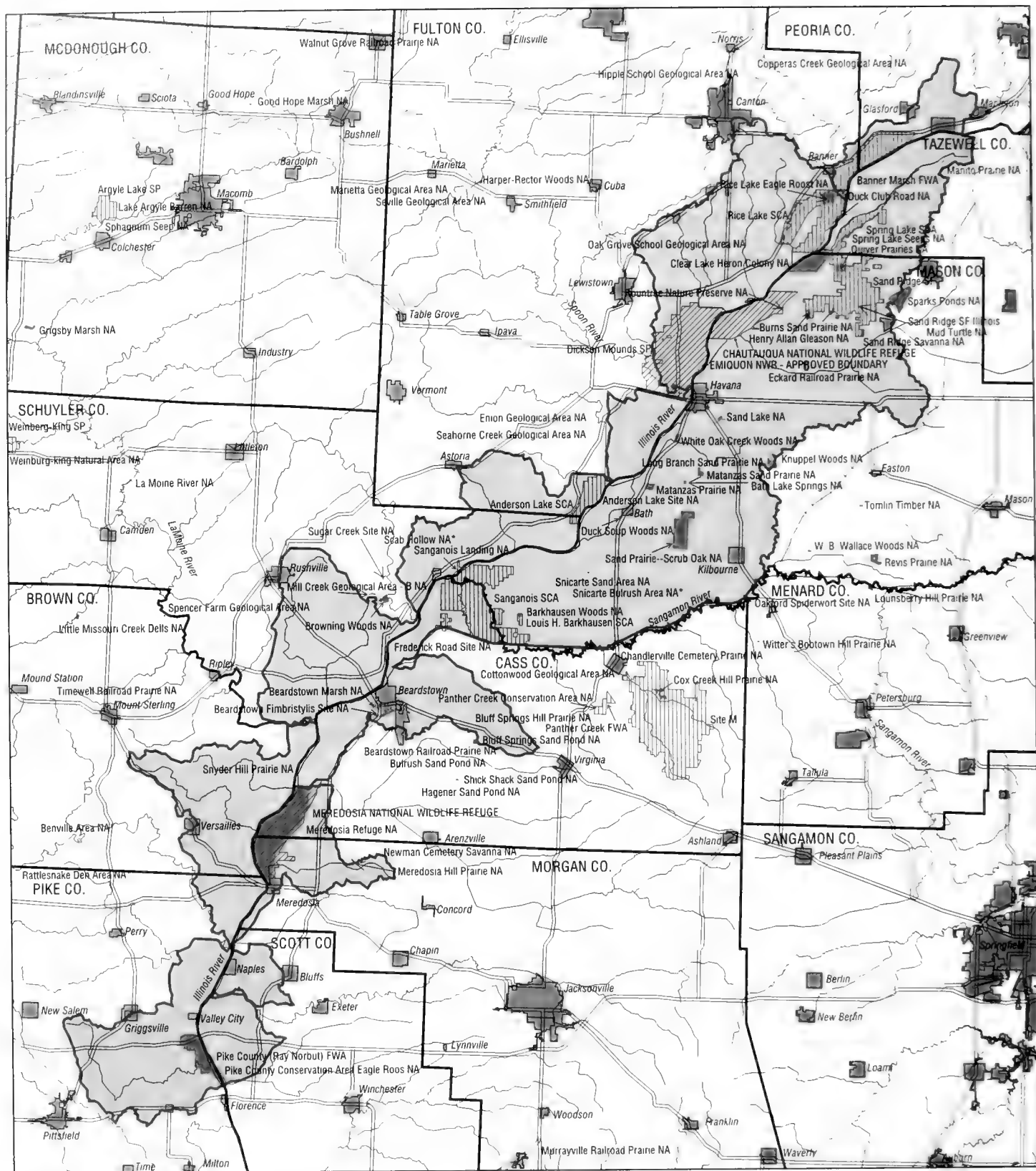
**Size:**  
575,515 acres  
899 square miles

**Location:**  
Central Illinois, the Illinois River from Peoria to Florence; Brown, Cass, Fulton, Mason, Morgan, Pike, Peoria, Schuyler, Scott, and Tazewell counties.

Landcover at a Glance







|                   |     |
|-------------------|-----|
| upland forest     | 16% |
| bottomland forest | 7%  |
| wetland           | 1%  |
| grassland         | 17% |
| cropland          | 52% |
| urban built-up    | 1%  |
| water             | 7%  |



## Middle Illinois River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

8 Miles





## Middle Illinois River



8 Miles

**T**he plant communities of the sand prairies are a mix of native tallgrass species and plants more commonly associated with the western U.S. The sand deposited by glacial meltwaters favors survival of plants that can tolerate dry and sometimes shifting environments. One such plant is the prickly pear cactus. This native cactus is found in several habitats in Illinois, but is most abundant in sand prairies.

SUMMARY OF SITE CHARACTERISTICS (*continued*)

|   |                  |                 |
|---|------------------|-----------------|
| State Land                                  |                  |                 |
| State Parks                                 |                  | 1               |
| State Conservation Areas                    |                  | 5               |
| State Forests                               |                  | 1               |
| State Fish & Wildlife Areas                 |                  | 2               |
| Acreage                                     |                  | 31,630          |
| Percentage of RRA                           |                  | 5.5             |
| Federal Land                                |                  |                 |
| Acreage                                     |                  | 21,499          |
| Percentage of RRA                           |                  | 3.7             |
| LANDCOVER                                   | <u>Acres</u>     | <u>% of RRA</u> |
| Upland forest                               | 89,583.27        | 15.57           |
| Bottomland forest                           | 37,775.68        | 6.56            |
| Wetland                                     | 5,911.26         | 1.03            |
| Grassland                                   | 95,049.35        | 16.52           |
| Cropland                                    | 298,972.80       | 51.95           |
| Urban/Built/up                              | 6,095.51         | 1.06            |
| Water                                       | <u>42,106.16</u> | <u>7.32</u>     |
| TOTAL                                       | 575,494.03       | 100.01          |
| ILLINOIS NATURAL AREAS INVENTORY SITES      |                  | <u>Acres</u>    |
| Anderson Lake Site                          |                  | 2               |
| Barkhausen Woods                            |                  | 45              |
| Bath Lake Springs                           |                  | 4               |
| Beardstown Fimbristylis Site                |                  | 1               |
| Beardstown Marsh                            |                  | 468             |
| Beardstown Railroad Prairie                 |                  | 3               |
| Bluff Springs Hill Prairie                  |                  | 5               |
| Bluff Springs Sand Pond                     |                  | <1              |
| Burns Sand Prairie                          |                  | 59              |
| Clear Lake Heron Colony                     |                  | 1,405           |
| Duck Club Road                              |                  | -               |
| Duck Soup Woods                             |                  | 38              |
| Eckard Railroad Prairie                     |                  | 3               |
| Frederick Road Site                         |                  | 14              |
| Henry Allan Gleason                         |                  | 98              |
| Knuppel Woods                               |                  | 134             |
| Long Branch Sand Prairie                    |                  | 110             |
| Manito Prairie                              |                  | 13              |
| Matanzas Prairie                            |                  | 158             |
| Matanzas Sand Prairie                       |                  | 33              |
| Meredosia Hill Prairie                      |                  | <1              |
| Meredosia Refuge                            |                  | 5,735           |
| Oakford Spiderwort Site                     |                  | 5               |
| Pike County Conservation Area Eagle Roost   |                  | 2,263           |
| Quiver Prairies                             |                  | 200             |
| Rice Lake Eagle Roost                       |                  | 443             |
| Rountree Nature Preserve                    |                  | 27              |
| Sand Lake                                   |                  | 72              |
| Sand Prairie--Scrub Oak                     |                  | 1,530           |
| Sand Ridge Savanna                          |                  | 58              |
| Sand Ridge State Forest Illinois Mud Turtle |                  | 5               |
| Sanganois Landing                           |                  | 12              |

|                       |     |
|-----------------------|-----|
| Snicarte Bulrush Area | *   |
| Snicarte Sand Area    | 3   |
| Snyder Hill Prairie   | 5   |
| Sparks Ponds          | 227 |
| Spring Lake Seeps     | 186 |
| White Oak Creek Woods | 105 |

\* = point location, map not available

#### BIOLOGICALLY SIGNIFICANT STREAMS

None

#### NATURAL HERITAGE CATEGORIES

| Middle Illinois River             | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Wetland                           | 2                  | 1                    |
| Forest                            | 3                  | 2                    |
| Savanna                           | 3                  | 1                    |
| Prairie                           | 9                  | 5                    |
| Threatened and Endangered Animals |                    |                      |
| Amphibian                         | 9                  | 1                    |
| Bird                              | 29                 | 13                   |
| Fish                              | 2                  | 1                    |
| Mammal                            | 4                  | 3                    |
| Reptile                           | 5                  | 2                    |
| Insect                            | 3                  | 2                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 30                 | 13                   |
| Plant-Monocot                     | 28                 | 6                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 1                  | 1                    |
| Other                             |                    |                      |
| Forest Block >500 Acres           | 3                  | 1                    |
| Rookery                           | 3                  | 1                    |

#### STATE AND FEDERAL LANDS

|                                     |              |
|-------------------------------------|--------------|
| State Parks                         | <u>Acres</u> |
| Dickson Mounds                      | 26           |
| State Conservation Areas            |              |
| Anderson Lake                       | 2,096        |
| Louis H. Barkhausen                 | 1,176        |
| Rice Lake                           | 5,249        |
| Sanganois                           | 8,779        |
| Spring Lake                         | 1,785        |
| State Forests                       |              |
| Sand Ridge                          | 7,428        |
| State Fish and Wildlife Areas       |              |
| Banner Marsh                        | 4,203        |
| Pike County (Ray Norbut)            | 888          |
| Federal Land                        |              |
| Chautauqua National Wildlife Refuge | 4,809        |
| Emiquon NWR -Approved Boundary      | 9,859        |
| Emiquon NWR -Current Holdings       | 92           |
| Meredosia National Wildlife Refuge  | 6,739        |

#### ILLINOIS NATURE PRESERVES

|                                     |              |
|-------------------------------------|--------------|
| Henry Allen Gleason Nature Preserve | <u>Acres</u> |
|                                     | 93           |

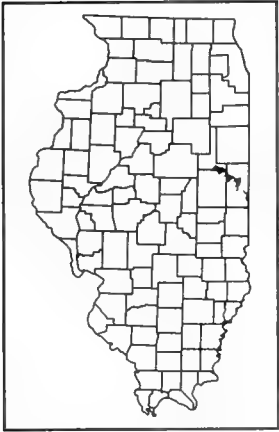
**H**istorically, the Illinois River Valley has been one of the most important migration areas for waterfowl in North America. During spring and fall migrations, waterfowl are attracted to the abundance of food available in the shallow bottomland lakes, sloughs, marshes, ponds, and forests. Early accounts of the area describe vast numbers of waterfowl. The Illinois River Valley has been greatly altered by drainage of the wetlands and sedimentation of the river. Aquatic vegetation has disappeared from the lakes and the numbers of some waterfowl species began to decline in the 1950s.

**T**he Illinois chorus frog is restricted to sandy floodplains, and the sand prairies adjacent to the Illinois River provide ideal habitat. In Illinois, this frog is found exclusively in three widely separated regions. A state-threatened species, it is dependent on the protection of its habitat. The chorus frog has the unusual habit of burrowing into the sand with its front feet (the vast majority of frogs use their hind feet). It also feeds underground, a behavior unknown in any other frog species. The Illinois chorus frog can only be seen in the spring, when it comes out of the ground to mate.

ILLINOIS NATURE PRESERVES (*continued*)

|   |               |            |                 |
|---|---------------|------------|-----------------|
| Long Branch Sand Prairie                |               |            | 92              |
| Manito Prairie                          |               |            | 25              |
| Matanzas Prairie                        |               |            | 38              |
| Meredosia Hill Prairie                  |               |            | <1              |
| Sand Prairie-Scrub Oak                  |               |            | 1,377           |
| NATURAL DIVISIONS                       | Acres         | % of       | % of            |
|   | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Upper Mississippi R                     |               |            |                 |
| and Illinois R Bottomlands              | 238,406       | 41.4       | 20.2            |
| Illinois R and Mississippi R Sand Areas | 151,631       | 26.33      | 9.4             |
| Western Forest-Prairie                  | 136,059       | 23.6       | 3.0             |
| Middle Mississippi Border               | 39,876        | 6.9        | 2.5             |
| Grand Prairie                           | 9,543         | 1.7        | 0.1             |





## VERMILION RIVER

*The Vermilion River RRA is located on a level glacial plain originally covered with prairie vegetation with occasional savannas on the uplands and forests along the streams. This RRA is comprised of two nonadjoining watersheds. The upstream watershed, the Middle Fork of the Vermilion River, is separated from the lower Vermilion River watershed by the city of Danville.*

**LANDCOVER** ♦ The site is 69% cropland and ranks fifth in percentage of cropland. Grassland accounts for 18% and woods for 9% of the area. This RRA ranks low in upland

woods, bottomland woods, and nonforested wetlands percentages.

**NATURAL AREAS** ♦ Fourteen sites cover nearly 2,000 acres of this RRA. Communities considered significant in the RRA include numerous seeps, prairies, savannas, forests, and aquatic systems. The beech-maple forests in this area are significant in the state because they represent the western edge of this community type in the U.S.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ This site ranks sixth in terms of the total miles of BSS streams. The lower 46 miles of the Middle Fork and 12 miles of the Vermilion River below Danville are recognized as high quality streams.

**HERITAGE SITES** ♦ There are 44 Heritage sites within this RRA representing six significant communities, three plant species, 18 animal species, and a rookery.

**STATE AND FEDERAL LAND** ♦ Kickapoo State Park and the Middle Fork State Fish and Wildlife Area are located in this RRA. There is no federal land within this site.

**NATURE PRESERVES** ♦ Important natural features in the nine Nature Preserves within this RRA include seeps, savannas, prairies, and beech-maple forests.

**NATURAL DIVISIONS** ♦ The Vermilion River RRA is approximately two-thirds Grand Prairie Division and one-third Wabash Border Division.

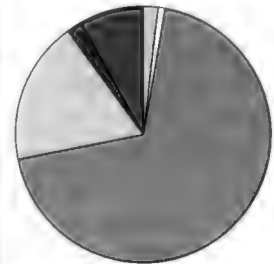
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 132,252 |
| Natural Areas                           |         |
| Acreage                                 | 1,998   |
| Number                                  | 14      |
| Biologically Significant Stream Mileage | 58.0    |
| Natural Heritage Sites                  | 44      |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 1       |
| Acreage                                 | 5,944   |
| Percentage of RRA                       | 4.5     |

**Size:**  
132,252 acres,  
207 square miles

**Location:**  
East-central Illinois  
bordering Indiana;  
Champaign, Ford,  
and Vermilion  
counties

Landcover at a Glance



|                   |     |
|-------------------|-----|
| upland forest     | 8%  |
| bottomland forest | 2%  |
| wetland           | <1% |
| grassland         | 18% |
| cropland          | 69% |
| urban built-up    | 1%  |
| water             | 2%  |

**T**he clear, gravel-bottomed Middle Fork of the Vermilion River is a high quality stream which supports a rich diversity of aquatic species. Numerous species of fish, mussels, and other invertebrates occur in its boulder riffles, sand and gravel raceways, and clear pools. A segment of the Middle Fork is Illinois' only stream designated as a National Wild and Scenic River. Unusual terrestrial features of this area include seeps, beech-maple forests, and hill prairies.

|                   |     |
|-------------------|-----|
| Federal Land      |     |
| Acreage           | 0   |
| Percentage of RRA | 0.0 |

| LANDCOVER            | <u>Acres</u>    | <u>% of RRA</u> |
|----------------------|-----------------|-----------------|
| Upland forest        | 8,639.28        | 7.77            |
| Bottomland forest    | 1,891.27        | 1.70            |
| Wetland- nonforested | 321.74          | 0.29            |
| Grassland            | 19,744.46       | 17.77           |
| Cropland             | 77,140.77       | 69.41           |
| Urban/Built-up       | 1,445.70        | 1.30            |
| Water                | <u>1,947.67</u> | <u>1.75</u>     |
| TOTAL                | 111,130.89      | 99.99           |

| ILLINOIS NATURAL AREAS INVENTORY SITES | <u>Acres</u> |
|--|--------------|
| Fairchild Cemetery Prairie and Savanna | 2            |
| Forest Glen Seep                       | 12           |
| Harmattan Stripmine                    | 3            |
| Kennekuk Cove County Park              | 858          |
| Kinney's Fork Seeps                    | *            |
| Middle Fork Seeps                      | *            |
| Middle Fork of the Vermilion River     | 558          |
| Middlefork Woods                       | 66           |
| Orchid Hill                            | 143          |
| Prospect Cemetery Prairie              | 7            |
| Russell M. Duffin Nature Preserve      | 193          |
| Vermilion River                        | 146          |
| Willow Creek Seep                      | 1            |
| Windfall Prairie                       | 10           |

\* = point location, map not available

| BIOLOGICALLY SIGNIFICANT STREAMS               | <u>Miles</u> |
|--|--------------|
| Middle Fork Vermilion River                    | 46.1         |
| Salt Fork Vermilion R., Co line to Middle Fork | 0.0          |
| Vermilion River                                | 11.9         |

#### NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Wetland                           | 5                  | 2                    |
| Forest                            | 1                  | 1                    |
| Savanna                           | 1                  | 1                    |
| Prairie                           | 2                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Amphibian                         | 1                  | 1                    |
| Bird                              | 17                 | 10                   |
| Fish                              | 4                  | 3                    |
| Mammal                            | 1                  | 1                    |
| Insect                            | 1                  | 1                    |
| Mollusk                           | 4                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Monocot                     | 4                  | 3                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 2                  | 1                    |
| Other                             |                    |                      |
| Rookery                           | 1                  | 1                    |



## STATE AND FEDERAL LAND

|                               |              |
|-------------------------------|--------------|
| State Parks                   | <u>Acres</u> |
| Kickapoo                      | 2,269        |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas |              |
| Middle Fork                   | 3,675        |
| Federal Land                  | 0            |

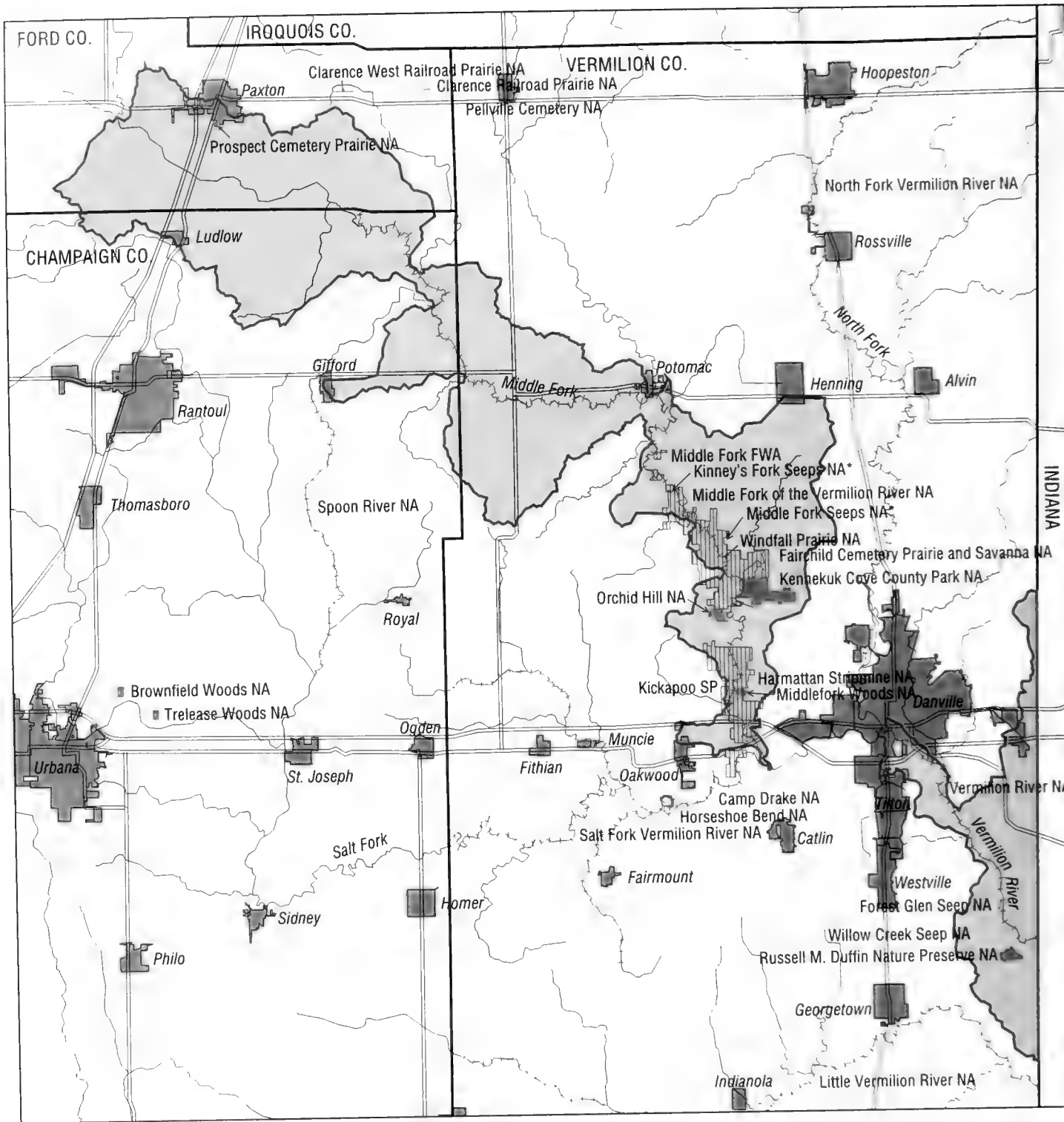
## ILLINOIS NATURE PRESERVES

|                                    |              |
|------------------------------------|--------------|
| Fairchild Cemetery Savanna         | <u>Acres</u> |
| Forest Glen Seep                   | 4            |
| Horseshoe Bottom                   | 9            |
| Howard's Hollow Seep               | 38           |
| Middle Fork Woods                  | 29           |
| Prospect Cemetery                  | 61           |
| Russell M. Duffin                  | 7            |
| Tomlinson Pioneer Cemetery Prairie | 191          |
| Windfall Prairie                   | 5            |
|                                    | 35           |




## NATURAL DIVISIONS





|               | <u>Acres</u>  | <u>% of</u> | <u>% of</u>     |
|---------------|---------------|-------------|-----------------|
|               | <u>in RRA</u> | <u>RRA</u>  | <u>Division</u> |
| Grand Prairie | 82,463        | 62.8        | 0.6             |
| Wabash Border | 48,819        | 37.2        | 2.8             |

**N**otable among the abundant and diverse fish fauna of the Vermilion basin is the bluebreast darter. The breeding male has a colorful olive-green body with a bright blue breast, orange dorsal fins, and red spots along the sides. The bluebreast darter lives in fast riffles of large, clear streams. Adults are almost always found near large boulders. Illinois is on the western edge of its range. The only known location of this species in Illinois is in the Vermilion River basin.



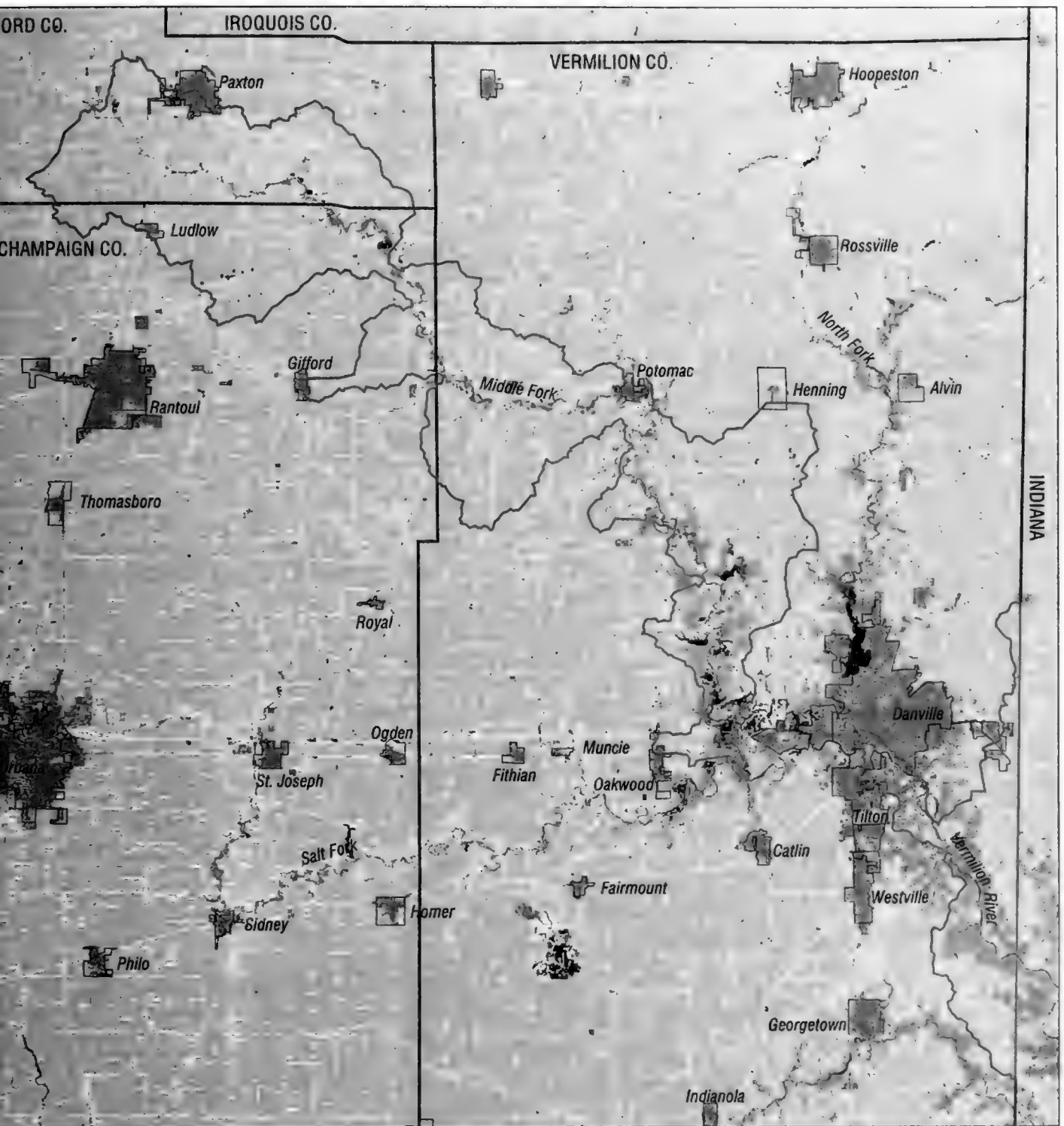
## Vermilion River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

5 Miles





## Vermilion River



5 Miles

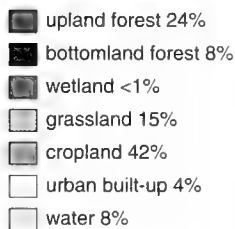
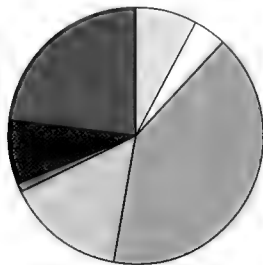
**Size:**

626,795 acres

979 square miles

**Location:**

Western Illinois,  
upriver of the  
confluence of the  
Illinois and  
Mississippi rivers;  
Adams, Calhoun,  
Greene, Jersey,  
Madison, Pike, and  
Scott counties

**Landcover at a Glance**

## BIG RIVERS

*Big Rivers is the largest of the RRAs. The area is characterized by a narrow band of bluffs and rugged topography that borders the floodplains of the Mississippi and Illinois Rivers. Forest is the predominant natural vegetation; hill prairies are common on western facing bluffs. Sinkholes and sinkhole ponds occur here.*

**LANDCOVER** ♦ Cropland is the predominant landcover type (42%) of the site, followed by upland woods (24%). Big Rivers has the highest bottomland woods acreage and the third highest upland woods acreage among the RRAs; it ranks seventh in percentages of both bottomland and upland woods. It has moderate nonforested wetlands resources.

**NATURAL AREAS** ♦ Sixty-one Natural Areas, totaling 10,514 acres, are located in this RRA. The largest is Gardner Woods with 4,468 acres. Significant features include hill prairies, aquatic systems, woods, geological areas, glades, and caves.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Twenty miles of Hadley Creek and nine miles of the Mississippi River are designated BSS.

**HERITAGE SITES** ♦ There are 150 Heritage sites within this RRA representing seven significant community types, 11 plant species, 23 animal species, and eight rookeries.

**STATE AND FEDERAL LAND** ♦ The state and federal governments own 47,448 acres. Most is federal land divided among Mark Twain National Wildlife Refuge and the pools of the rivers. Pere Marquette State Park and Calhoun County Conservation Area are state land located in this RRA.

**NATURE PRESERVES** ♦ There are five Nature Preserves in this RRA. Communities protected in the preserves are bluffs, sink holes, ravines, bedrock outcrops, upland forest, and hill prairie.

**NATURAL DIVISIONS** ♦ This site contains five natural divisions, predominantly the Middle Mississippi Border and Upper Mississippi and Illinois River Bottomlands.

**SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LAND**

|   |         |
|---|---------|
| Total Acreage                           | 626,795 |
| Natural Areas                           |         |
| Acreage                                 | 10,514  |
| Number                                  | 61      |
| Biologically Significant Stream Mileage | 28.9    |
| Natural Heritage Sites                  | 150     |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 1       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |



|                      |                              |
|----------------------|------------------------------|
| Acreage              | 9,547                        |
| Percentage of RRA    | 1.5                          |
| Federal Land         |                              |
| Acreage              | 37,901                       |
| Percentage of RRA    | 6.0                          |
| LANDCOVER            | <u>Acres</u> <u>% of RRA</u> |
| Upland forest        | 147,380.80      23.51        |
| Bottomland forest    | 48,335.94      7.71          |
| Wetland- nonforested | 3,943.51      0.63           |
| Grassland            | 90,915.57      14.51         |
| Cropland             | 263,995.60      42.12        |
| Urban/Built-up       | 23,125.79      3.69          |
| Water                | <u>49,085.98</u> <u>7.83</u> |
| TOTAL                | 626,783.19      100.00       |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                                   |              |
|-----------------------------------|--------------|
|                                   | <u>Acres</u> |
| Alton Geological Area             | 7            |
| Atlas South Geological Area       | 7            |
| Beebe Creek Site                  | *            |
| Bellevue Site                     | 8            |
| Brainerd Cave                     | 3            |
| Brewster Hill Prairie             | 3            |
| Browning Hill Prairie             | 45           |
| Cap Au Gris                       | 98           |
| Chautauqua Prairie                | 126          |
| Cincinnati Landing Site           | 164          |
| Clarksville Island                | 820          |
| Deer Lick Hollow Geological Area  | 7            |
| Del Air Area                      | *            |
| Distillery Hollow Glade           | 40           |
| Drift Island                      | 541          |
| Eldred Caves                      | 12           |
| Emma Brown Hill Prairie           | 3            |
| Gardner Woods                     | 4,468        |
| Gilbert Lake                      | 11           |
| Golden Eagle Geological Area      | 2            |
| Grubb Hollow Prairie              | 14           |
| Hadley Creek                      | 202          |
| Hamburg Southeast Geological Area | 1            |
| Horton Creek Hill Prairie         | 4            |
| Jennings Hill Prairie             | 2            |
| Jimtown Branch Geological Area    | 5            |
| John Craig Hill Prairie           | 8            |
| Kamp's Glade                      | 214          |
| Kinderhook Hill Prairie           | 5            |
| Krause Woods                      | 81           |
| Lead Hollow Glade                 | 22           |
| McAdams Peak Hill Prairie         | 252          |
| McNabb Hollow                     | 28           |
| Mississippi River -Cap Au Gris    | 1,431        |
| Mississippi River -Pike           | .            |
| Monterey School Geological Area   | 17           |
| Mortland Glade                    | 101          |

**T**he three areas in Illinois that were not covered by glaciers are the northwest corner, the far south, and the area where the Illinois River joins the Mississippi River. Glaciers did, however, influence these nonglaciated areas. In addition to rock and sand, melt-water deposited a finely ground silt which dried to a dust called loess. Windblown loess deposits along the lower Illinois River are among the thickest in the state. Several loess hill prairies occur in Big Rivers. A layer of loess, sometimes 150-feet thick, forms steep slopes and vertical cliffs.

**O**verlooking the Mississippi River north of Alton is a forested tract that includes three nature preserves: John M. Olin, Oblate Father's Woods, and Mississippi Sanctuary. Limestone bluffs, bedrock outcrops, sink holes, dry-to-mesic upland forest, and loess hill prairie characterize this area. Bald eagles have used the area as a winter roosting site.

ILLINOIS NATURAL AREAS INVENTORY SITES (*continued*)

|                                       | <u>Acres</u> |
|---------------------------------------|--------------|
| Motley Hill Prairie                   | 6            |
| Mozier Slough                         | 34           |
| North New Canton Hill Prairie         | 20           |
| Olin Tract                            | 244          |
| Osterman Hill Prairie                 | 13           |
| Pearl Limestone Quarry                | 11           |
| Pearl Prairie Geological Area         | 4            |
| Pere Marquette Bald Eagle Habitat     | 492          |
| Pilot Knob Limestone Glade            | 4            |
| Pleasant Hill Hill Prairie            | 1            |
| Principia Hill Prairies East          | 480          |
| Principia Hill Prairies West          | 101          |
| Quincy Geological Area                | 4            |
| Riprap Landing Woods                  | 179          |
| Royal Landing                         | 30           |
| Shaffer Hollow Hill Prairie           | 36           |
| Shewhart Hollow Hill Prairie          | 23           |
| Swarnes Hill Prairie                  | 39           |
| Teneriffe School Geological Area      | 4            |
| Twin Culvert Cave                     | 4            |
| Two Branch Hollow Hill Prairie        | 10           |
| Walnut Grove Hill Prairies            | 3            |
| West Point Landing Geological Area    | 15           |
| Wildcat Hollow North Geological Area  | 5            |
| * = point location, map not available |              |

## BIOLOGICALLY SIGNIFICANT STREAMS

|  | <u>Miles</u> |
|--|--------------|
| Hadley Creek, upstream of McCraney Creek | 19.9         |
| Mississippi River, below L&D 25          | 9.0          |

## NATURAL HERITAGE CATEGORIES

|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Floodplain Forest                 | 6                  | 2                    |
| Cave                              | 4                  | 2                    |
| Forest                            | 1                  | 1                    |
| Prairie                           | 24                 | 1                    |
| Primary                           | 5                  | 1                    |
| Threatened and Endangered Animals |                    |                      |
| Amphibian                         | 1                  | 1                    |
| Bird                              | 24                 | 8                    |
| Fish                              | 4                  | 2                    |
| Mammal                            | 15                 | 4                    |
| Reptile                           | 6                  | 2                    |
| Insect                            | 2                  | 2                    |
| Mollusk                           | 9                  | 4                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 19                 | 8                    |
| Plant-Monocot                     | 8                  | 3                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 14                 | 1                    |
| Other                             |                    |                      |
| Rookery                           | 8                  | 1                    |

## STATE AND FEDERAL LAND

|  |              |
|--|--------------|
| State Parks  | <u>Acres</u> |
| Pere Marquette                                     | 8,168        |
| State Conservation Areas                           |              |
| Calhoun County (Rip Rap Landing)                   | 1,379        |
| State Forests                                      | 0            |
| State Fish and Wildlife Areas                      | 0            |
| Federal Land                                       |              |
| Mark Twain NWR -Gilbert Lake Division              | 789          |
| Mark Twain NWR                                     | 1,876        |
| Mark Twain NWR -Gardner Division                   | 5,013        |
| Mark Twain NWR -Calhoun Division                   | 2,130        |
| Pool No. 21  | 3,019        |
| Pool No. 22  | 4,418        |
| Pool No. 24  | 3,372        |
| Pool No. 25 (Inc. Reds Landing and Batchtown FWMA) | 5,208        |
| Pool No. 26 -Calhoun Point                         | 2,317        |
| Pool No. 26 -Fuller Lake                           | 1,702        |
| Pool No. 26 -Glades Hembold                        | 954          |
| Pool No. 26 -Godar Diamond                         | 2,808        |
| Pool No. 26 -Stump Lake                            | 4,295        |

## ILLINOIS NATURE PRESERVES

|                       |              |
|-----------------------|--------------|
|                       | <u>Acres</u> |
| Grubb Hollow Prairie  | 45           |
| John M. Olin          | 230          |
| Mississippi Sanctuary | 38           |
| Oblate Father's Woods | 19           |
| Pere Marquette        | 179          |





| NATURAL DIVISIONS                       | Acres         | % of       | % of            |
|---|---------------|------------|-----------------|
|   | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Middle Mississippi Border               | 325,172       | 52.3       | 21.0            |
| Upper Mississippi R                     |               |            |                 |
| and Illinois R Bottomlands              | 209,421       | 33.7       | 17.8            |
| Western Forest-Prairie                  | 35,421        | 5.7        | 0.8             |
| Major Water Bodies                      | 34,200        | 5.5        | 3.0             |
| Lower Mississippi R Bottomlands         | 11,348        | 1.8        | 3.1             |
| Illinois R and Mississippi R Sand Areas | 5,912         | 1.0        | 1.5             |







**L**arge tracts of mature, bottom-land forest for nesting, interspersed with openings for foraging, are habitat requirements of the state-endangered Mississippi kite. Formerly common in some localities in the large river valleys of Illinois, the current population of this bird is small, with as few as 60 nesting pairs. These are limited to a few areas in southern Illinois and along the Mississippi River, including the Big Rivers area.



## Big Rivers

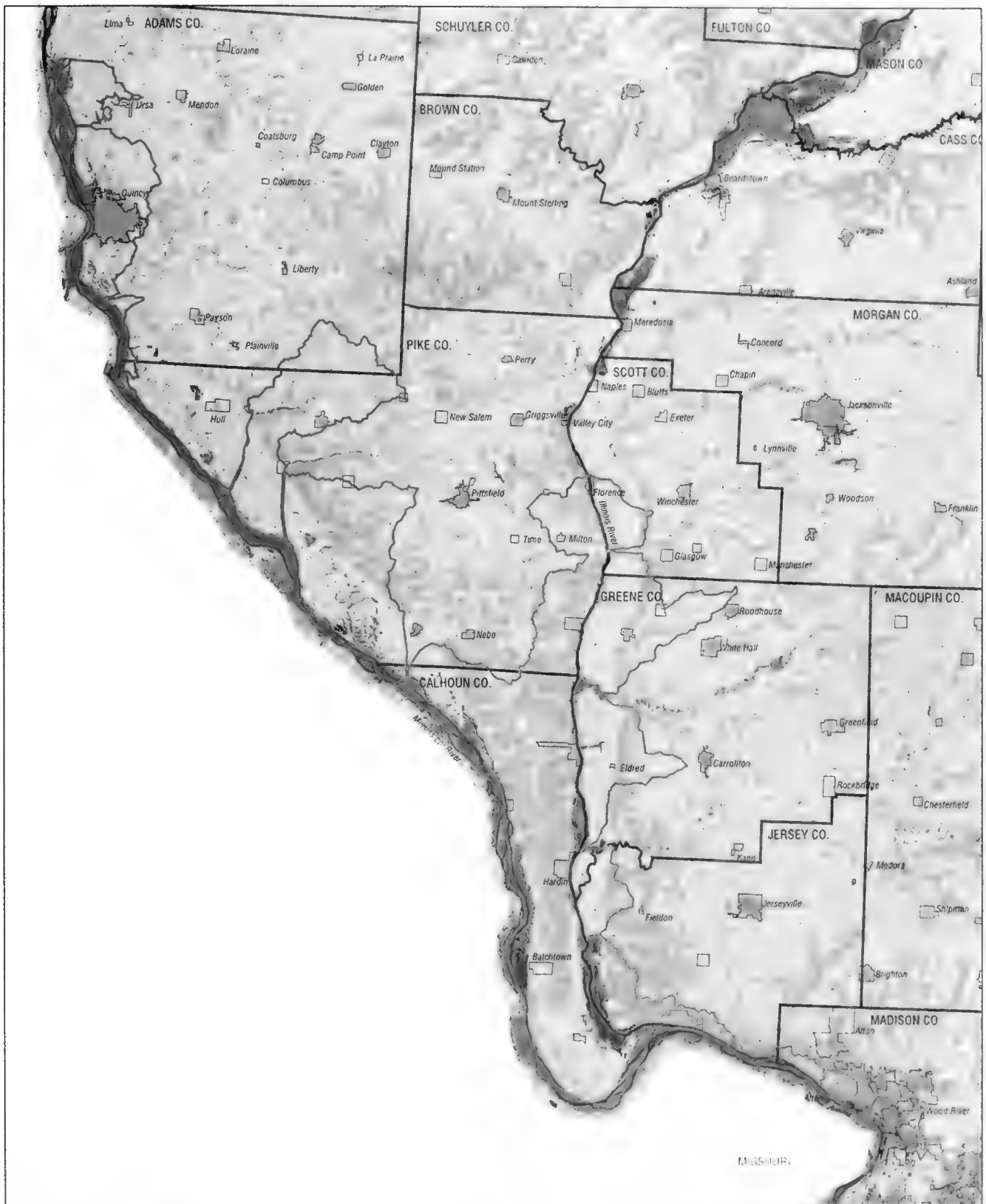
-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

10 Miles







## Big Rivers

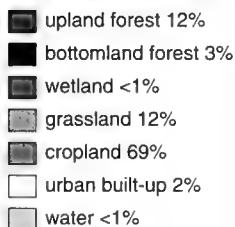
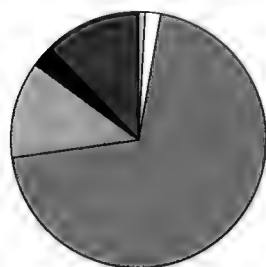


10 Miles

**Size:**  
447,925 acres  
700 square miles

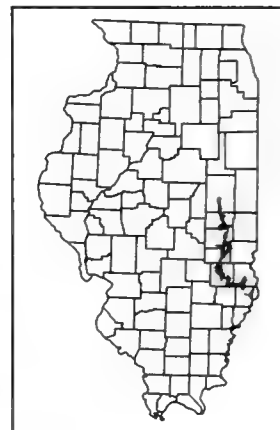
**Location:**  
East-central  
Illinois; Champaign,  
Clark, Coles,  
Crawford,  
Cumberland,  
Douglas, Jasper,  
Lawrence, and  
Richland counties.

**Landcover at a Glance**



## EMBARRAS RIVER

*The Embarras River RRA includes the entire length of the river from the headwaters south of Champaign-Urbana to its confluence with the Wabash River near Lawrenceville. The Embarras River itself is the predominant natural resource responsible for this area's inclusion in the Resource Rich Area inventory. Rich species diversity and a wide variety of habitats such as gravel bars, gravel-sand raceways, sandbars, riffles, and deep pools are the outstanding features of the river, particularly the middle sections. The area is one of the most agricultural among the RRAs. The Embarras River RRA shares common boundaries with the Upper Wabash River and Southern Till Plain RRAs.*



**LANDCOVER** ♦ Cropland occupies 69% of the land area at this site. The Embarras River RRA has the second highest cropland acreage and the second highest percentage of cropland. Approximately 15% of the RRA is wooded. Nonforested wetland resources are relatively low.

**NATURAL AREAS** ♦ Fifteen Natural Areas cover 5,009 acres, or approximately 1%, of this RRA. These sites include prairie chicken habitat, marshes, aquatic features, and hill prairies.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ This site ranks second in terms of BSS stream mileage with 112.5 miles of the Embarras River so designated.

**HERITAGE SITES** ♦ There are 50 Heritage sites within this RRA including five community types, three plant species, and 14 animal species.

**STATE AND FEDERAL LAND** ♦ State land consists of three state parks; no federal land occurs in this RRA.

**NATURE PRESERVES** ♦ Significant natural features in the three Nature Preserves that occur here are marsh, prairie, bottomland forest, old growth forest, and grasslands that support prairie chickens and other grassland-dependant species.

**NATURAL DIVISIONS** ♦ This RRA traverses three Natural Divisions—Grand Prairie (40%), Southern Till Plain (39%), and Wabash Border (21%).

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 447,925 |
| Natural Areas                           |         |
| Acreage                                 | 5,009   |
| Number                                  | 15      |
| Biologically Significant Stream Mileage | 112.5   |
| Natural Heritage Sites                  | 50      |
| State Land                              |         |
| State Park                              | 3       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |

|                             |       |
|-----------------------------|-------|
| State Fish & Wildlife Areas | 0     |
| Acreage                     | 3,226 |
| Percentage of RRA           | 0.7   |
| Federal Land                |       |
| Acreage                     | 0     |
| Percentage of RRA           | 0.0   |

| LANDCOVER            | <u>Acres</u>    | <u>% of RRA</u> |
|----------------------|-----------------|-----------------|
| Upland forest        | 55,777.59       | 12.45           |
| Bottomland Forest    | 14,086.30       | 3.14            |
| Wetland- nonforested | 1,160.49        | 0.26            |
| Grassland            | 52,677.86       | 11.76           |
| Cropland             | 310,970.20      | 69.43           |
| Urban-Built Up       | 9,040.50        | 2.02            |
| Water                | <u>4,204.43</u> | <u>0.94</u>     |
| TOTAL                | 447,917.37      | 100.00          |

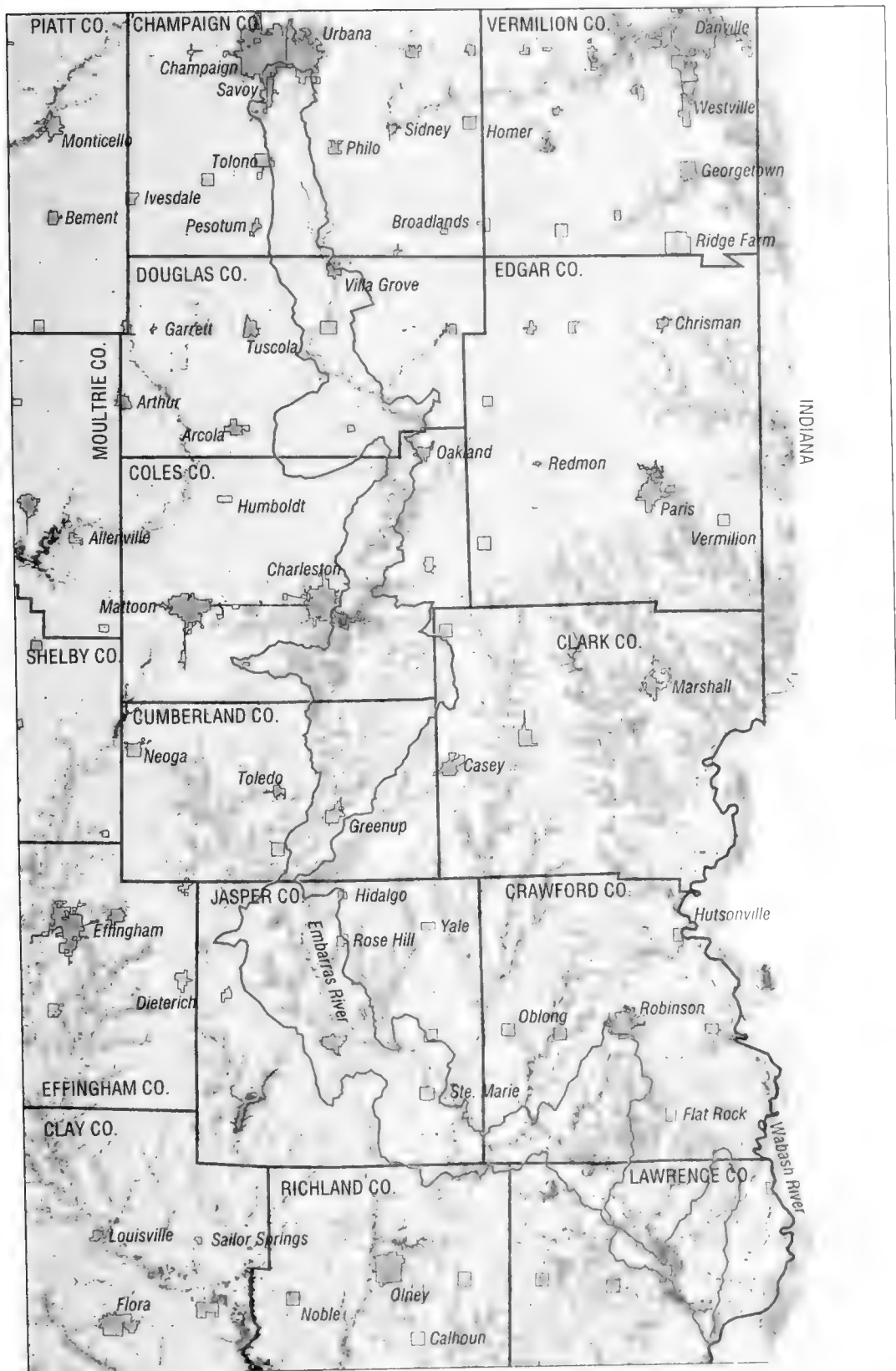
| ILLINOIS NATURAL AREAS INVENTORY SITES | <u>Acres</u> |
|--|--------------|
| Center School Geological Area          | 6            |
| Chauncey Marsh                         | 720          |
| Embarras River                         | 934          |
| Embarras River -Camargo                | 480          |
| Five-Mile Hill Prairie                 | 5            |
| Hillside Marsh                         | 7            |
| Hutton Geological Area                 | 3            |
| Jasper County Prairie Chicken Habitat  | 1,094        |
| Lawrenceville Airport                  | 1,389        |
| Sargent's Woods                        | 95           |
| Steber's Woods                         | 37           |
| Stevens Hill Prairie                   | 7            |
| Stoddard Hill Prairie                  | 9            |
| Walnut Point                           | 219          |
| Water Works Hill Prairie               | 4            |

| BIOLOGICALLY SIGNIFICANT STREAMS                   | <u>Miles</u> |
|--|--------------|
| Embarras River, Lake Charleston to Jasper/Richland | 80.0         |
| Embarras River, Rte 36 to Little Embarras River    | 32.5         |

| NATURAL HERITAGE CATEGORIES       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Floodplain Forest                 | 1                  | 1                    |
| Wetland                           | 2                  | 2                    |
| Forest                            | 2                  | 1                    |
| Prairie                           | 4                  | 1                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 7                  | 4                    |
| Fish                              | 4                  | 2                    |
| Reptile                           | 2                  | 1                    |
| Insect                            | 1                  | 1                    |
| Mollusk                           | 16                 | 6                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 4                  | 2                    |
| Plant-Monocot                     | 5                  | 1                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 2                  | 1                    |
| Other                             |                    |                      |

**A** 100-mile stretch of the midsection of the Embarras River is designated as a Biologically Significant Stream. The extensive sand-and-gravel substrate of the midsection of the river provides habitat for a number of rare species, such as the harlequin darter, eastern sand darter, bigeye shiner, and blue sucker. Mussel diversity is high and historically the river has supported eleven state-threatened or state-endangered species.





## Embarras River



9 Miles

**M**illions of prairie chickens existed in Illinois in the mid to late 1800s. In the spring of 1994, the native population numbered about 50. Two sanctuaries were established in east-central Illinois to provide grassland habitat for the remaining birds. The restored grassland ecosystem has benefitted other rare grassland birds as well, including Henslow's sparrow, grasshopper sparrow, dickcissel, upland sandpiper, short-eared owl, and northern harrier.

## STATE AND FEDERAL LAND

## State Parks

Fox Ridge

Sam Parr

Walnut Point

State Conservation Areas

State Forests

State Fish and Wildlife Areas

Federal Land

## ILLINOIS NATURE PRESERVES

Chauncey Marsh

Jasper Co. Prairie Chicken Sanctuary

Upper Embarras Woods

## NATURAL DIVISIONS

Grand Prairie

Southern Till Plain

Wabash Border

Acres

1,544

1,153

529

0

0

0

0

Acres

116

53

68

Acres

in RRA

180,445

173,344

94,137

% of

RRA

40.3

38.7

21.0

% of

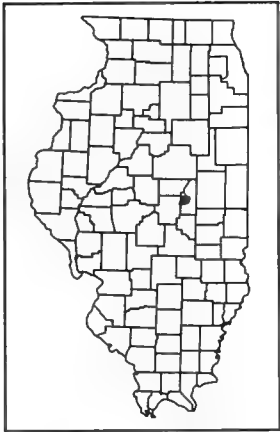
Division

1.4

2.4

5.4





## SANGAMON RIVER

*The major natural features of the Sangamon River RRA are the forest tract at Robert Allerton Park and the Sangamon River. The area is highly agricultural. This RRA is relatively small.*

**LANDCOVER** ♦ Nearly three-fourths of the Sangamon River RRA is cropland, the highest percentage among the RRAs. Fourteen percent of the RRA is grassland and 10% is wooded. Upland and bottomland wood percentages are moderately low. This site has the lowest acreage and lowest percentage of nonforested wetlands of the RRAs; there are only 49 acres of

nonforested wetland identified in this site.

**NATURAL AREAS** ♦ The two Natural Areas are Robert Allerton Park and the Sangamon River.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ A 15.5 mile stretch of the Sangamon River is designated as a BSS stream.

**HERITAGE SITES** ♦ There are eight Heritage sites in this RRA representing four communities types, three animal species, and one large forest tract.

**STATE AND FEDERAL LAND** ♦ No state or federal land occurs in this RRA.

**NATURE PRESERVES** ♦ No Nature Preserves occur in this RRA.

**NATURAL DIVISIONS** ♦ This RRA lies entirely within the Grand Prairie Natural Division.

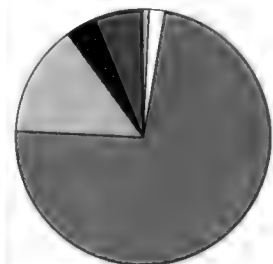
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |              |                 |
|---|--------------|-----------------|
| Total Acreage                           | 53,734       |                 |
| Natural Areas                           |              |                 |
| Acreage                                 | 880          |                 |
| Number                                  | 2            |                 |
| Biologically Significant Stream Mileage | 15.5         |                 |
| Natural Heritage Sites                  | 8            |                 |
| State Land                              |              |                 |
| State Parks                             | 0            |                 |
| State Conservation Areas                | 0            |                 |
| State Forests                           | 0            |                 |
| State Fish & Wildlife Areas             | 0            |                 |
| Acreage                                 | 0            |                 |
| Percentage of RRA                       | 0.0          |                 |
| Federal Land                            |              |                 |
| Acreage                                 | 0            |                 |
| Percentage of RRA                       | 0.0          |                 |
| <b>LANDCOVER</b>                        | <u>Acres</u> | <u>% of RRA</u> |
| Upland forest                           | 3,212.53     | 5.98            |
| Bottomland forest                       | 1,892.48     | 3.52            |
| Wetland- nonforested                    | 29.30        | 0.05            |

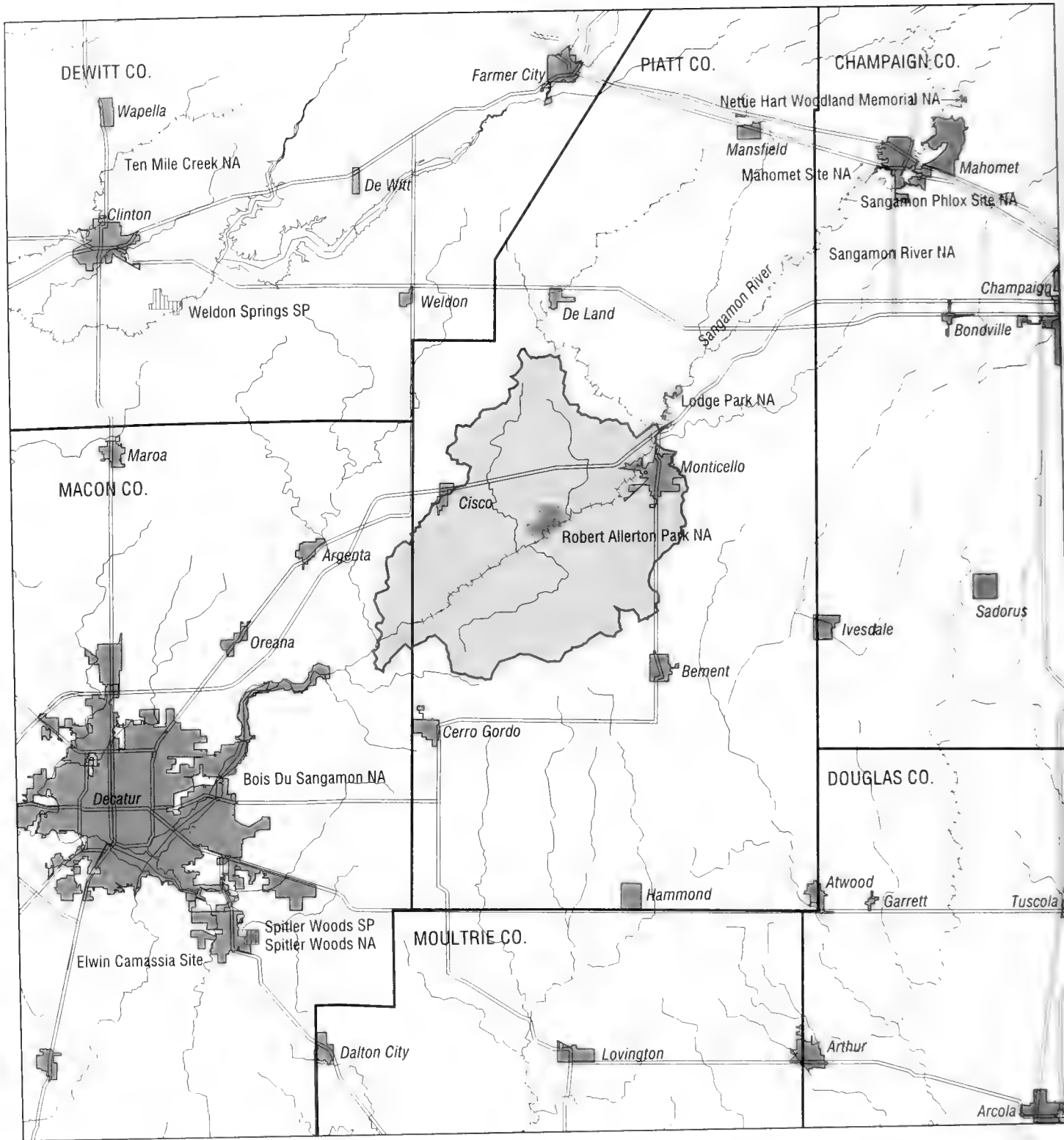
**Size:**  
53,734 acres  
84 square miles

**Location:**  
Central Illinois;  
Macon and Piatt  
counties.





Landcover at a Glance







- upland forest 6%
- bottomland forest 4%
- wetland <1%
- grassland 14%
- cropland 73%
- urban built-up 2%
- water <1%



## Sangamonsville River

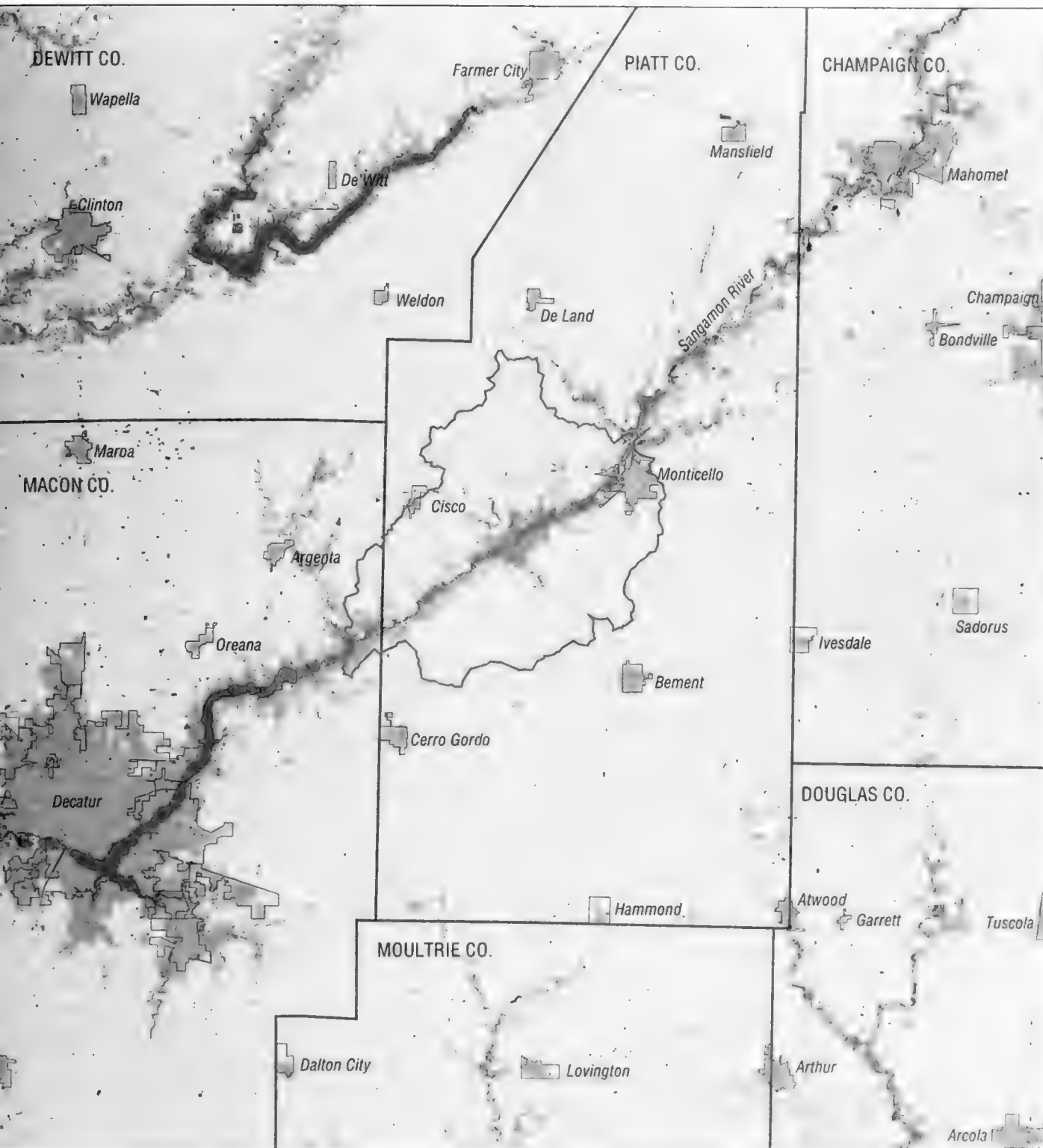
-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

5 Miles







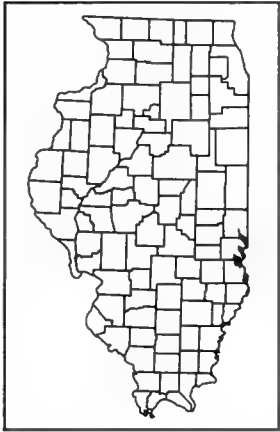
## Sangamon River



5 Miles

**A**t the center of the forested corridor along the Sangamon River in this area is Allerton Park. The natural area is an example of a relatively undisturbed stream-valley ecosystem. It includes bottomland forest, upland forest, reclaimed prairie, and wetlands.

| LANDCOVER ( <i>continued</i> )                    |  | <u>Acres</u>       | <u>% of RRA</u>      |
|---|--|--------------------|----------------------|
| Grassland   |  | 7,604.83           | 14.15                |
| Cropland  |  | 39,445.37          | 73.41                |
| Urban/Built-up                                    |  | 1,213.08           | 2.26                 |
| Water   |  | <u>337.19</u>      | <u>0.63</u>          |
| TOTAL   |  | 53,734.78          | 100.00               |
| ILLINOIS NATURAL AREAS INVENTORY SITES            |  |                    | <u>Acres</u>         |
| Robert Allerton Park                              |  |                    | 719                  |
| Sangamon River                                    |  |                    | 161                  |
| BIOLOGICALLY SIGNIFICANT STREAMS                  |  |                    | <u>Miles</u>         |
| Goose Creek                                       |  |                    | 0.0                  |
| Sangamon River, source to Piatt/Macon county line |  |                    | 15.5                 |
| NATURAL HERITAGE CATEGORIES                       |  |                    |                      |
| Communities                                       |  | <u>Occurrences</u> | <u>Types/Species</u> |
| Floodplain Forest                                 |  | 2                  | 2                    |
| Forest  |  | 2                  | 2                    |
| Threatened and Endangered Animals                 |  |                    |                      |
| Bird  |  | 2                  | 2                    |
| Reptile   |  | 1                  | 1                    |
| Threatened and Endangered Plants                  |  |                    |                      |
| Geological Feature                                |  |                    |                      |
| Other   |  |                    |                      |
| Forest Block >500 Acres                           |  | 1                  | 1                    |
| STATE AND FEDERAL LAND                            |  |                    | <u>Acres</u>         |
| State Parks                                       |  |                    | 0                    |
| State Conservation Areas                          |  |                    | 0                    |
| State Forests                                     |  |                    | 0                    |
| State Fish and Wildlife Areas                     |  |                    | 0                    |
| Federal Land                                      |  |                    | 0                    |
| ILLINOIS NATURE PRESERVES                         |  |                    |                      |
| None  |  |                    |                      |
| NATURAL DIVISIONS                                 |  | <u>Acres</u>       | <u>% of</u>          |
|   |  | <u>in RRA</u>      | <u>RRA</u>           |
| Grand Prairie                                     |  | 53,735             | 100.0                |
|   |  |                    | <u>% of</u>          |
|   |  |                    | <u>Division</u>      |
|   |  |                    | 0.4                  |



## UPPER WABASH RIVER

*The Upper Wabash River RRA encompasses the Wabash River mainstem from where it enters Illinois south to just above Lawrenceville and the narrow band of small tributaries to the river. The Wabash River is wide and slow flowing with sand-gravel substrate in this area. This is one of the last relatively unaltered big rivers in the Midwest.*

**LANDCOVER** ♦ This RRA is predominantly agricultural (63%), followed by wooded (22%). Moderate percentages of upland and bottomland woods occur in this site. Nonforested wetlands are not abundant.

**NATURAL AREAS** ♦ A total of 2,212 acres comprise four Natural Areas. The largest is the 1,929 acre stretch of the Wabash River at Mount Carmel.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ A 76-mile stretch of the Wabash River is designated as a BSS stream in this RRA.

**HERITAGE SITES** ♦ There are few Heritage sites in this RRA. One community type, one plant species, and four animal species are represented by the eight Heritage occurrences in this site.

**STATE AND FEDERAL LAND** ♦ Part of Lincoln Trail State Park occurs in this RRA.

**NATURE PRESERVES** ♦ Robeson Hills is the only Nature Preserve in this RRA. It is a remnant upland forest with a beech-maple community as its most significant feature.

**NATURAL DIVISIONS** ♦ This RRA lies almost entirely within the Wabash Border Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LAND

|   |           |
|---|-----------|
| Total Acreage                           | 170,654   |
| Natural Areas                           |           |
| Acreage                                 | 2,212     |
| Number                                  | 4         |
| Biologically Significant Stream Mileage | 76.4      |
| Natural Heritage Sites                  | 8         |
| State Land                              |           |
| State Parks                             | 1         |
| State Conservation Areas                | 0         |
| State Forests                           | 0         |
| State Fish & Wildlife Areas             | 0         |
| Acreage                                 | 3         |
| Percentage of RRA                       | 0.0       |
| Federal Land                            |           |
| Acreage                                 | 0         |
| Percentage of RRA                       | 0.0       |
| <b>LANDCOVER</b>                        |           |
| Upland forest                           | 30,079.33 |
| Bottomland Forest                       | 6,753.63  |
| Wetland- nonforested                    | 415.27    |

### Size:

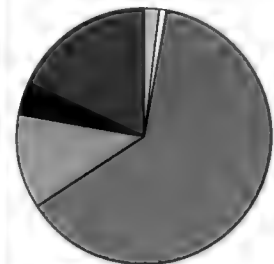
170,654 acres

267 square miles

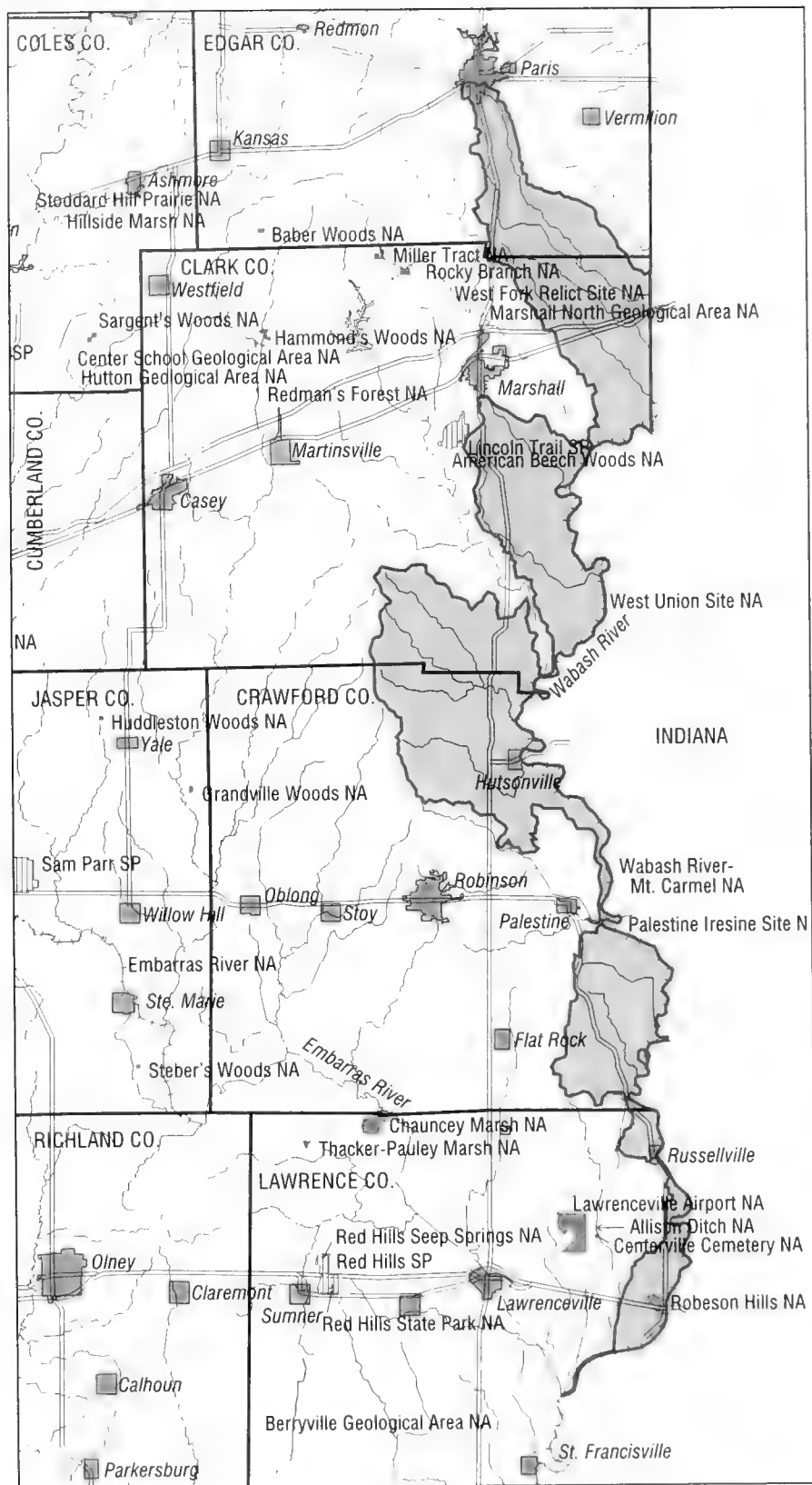
### Location:

Eastern Illinois along the Indiana border; Clark, Crawford, Edgar, and Lawrence counties

### Landcover at a Glance







- upland forest 18%
- bottomland forest 4%
- wetland <1%
- grassland 12%
- cropland 63%
- urban built-up 1%
- water 2%



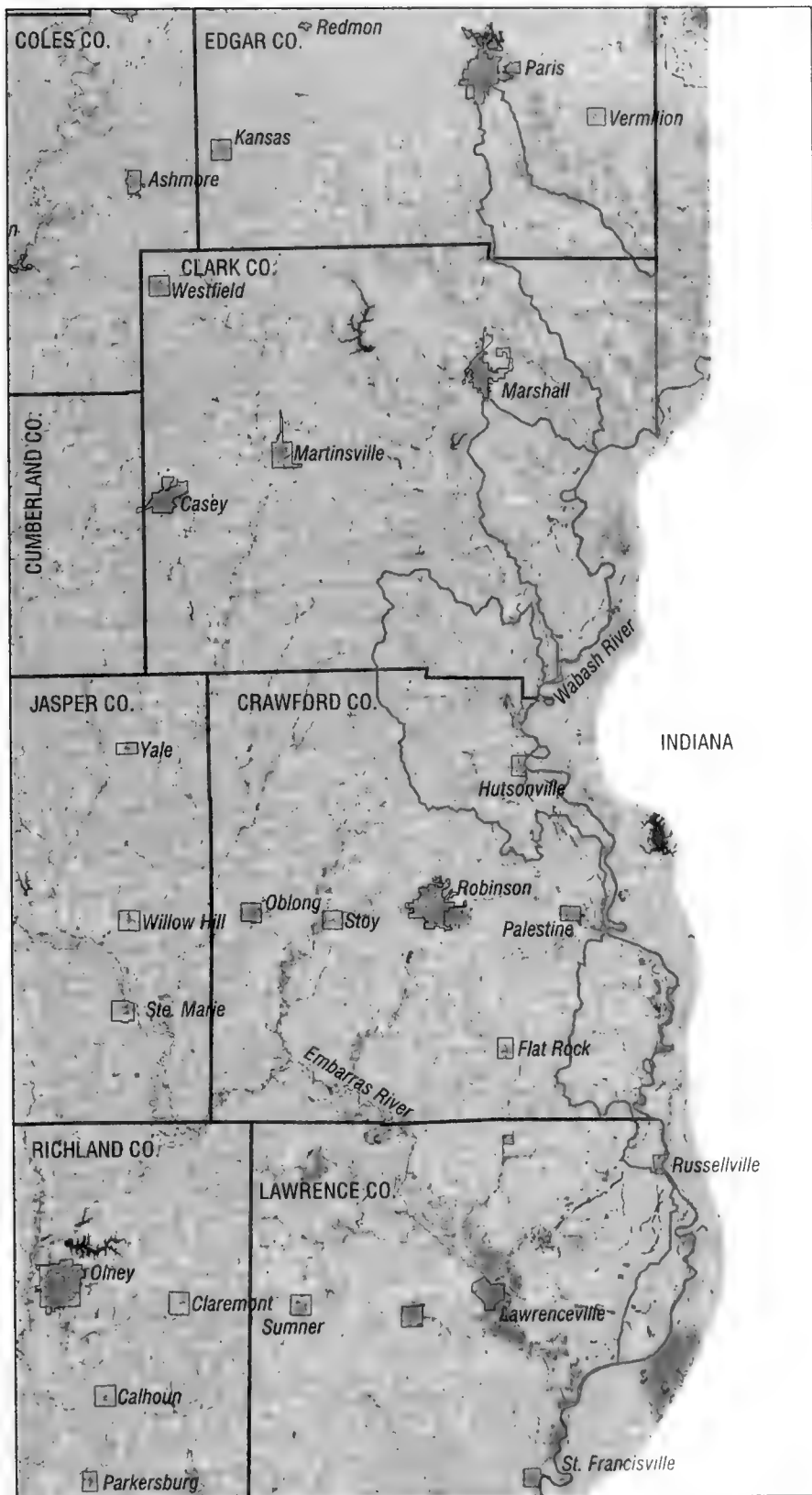
## Upper Wabash River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

7 Miles





## Upper Wabash River



7 Miles

**T**he transition zone between the beech-maple forests of the eastern U.S. and the prairie and oak-hickory forests of the west occurs on the eastern edge of Illinois. American beech, sugar maple, and tulip trees are common species of the eastern forests. Beech trees are distinctive with their pearl-gray bark and their tendency to occur in clumps as new trees grow from the surface roots of older trees. A mature, beech-maple forest is found in Robeson Hills Nature Preserve.

**LANDCOVER (continued)**

|                | <u>Acres</u>    | <u>% of RRA</u> |
|----------------|-----------------|-----------------|
| Grassland      | 20,958.54       | 12.28           |
| Cropland       | 108,361.70      | 63.49           |
| Urban-Built Up | 1,155.08        | 0.68            |
| Water          | <u>2,940.57</u> | <u>1.72</u>     |
| TOTAL          | 170,664.12      | 99.99           |

**ILLINOIS NATURAL AREAS INVENTORIES SITES**

|                           | <u>Acres</u> |
|---------------------------|--------------|
| Palestine Iresine Site    | <1           |
| Robeson Hills             | 279          |
| Wabash River-Mount Carmel | 1,929        |
| West Union Site           | 4            |

**BIOLOGICALLY SIGNIFICANT STREAMS**

|  | <u>Miles</u> |
|--|--------------|
| Wabash River, Clark Co. to White River | 76.4         |

**NATURAL HERITAGE CATEGORIES**

|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Forest                            | 1                  | 1                    |
| Threatened and Endangered Animals |                    |                      |
| Mammal                            | 1                  | 1                    |
| Reptile                           | 1                  | 1                    |
| Mollusk                           | 4                  | 2                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 1                  | 1                    |
| Geological Feature                |                    |                      |
| Other                             |                    |                      |

**STATE AND FEDERAL LAND**

|                               | <u>Acres</u> |
|-------------------------------|--------------|
| State Parks                   | 3            |
| Lincoln Trail                 | 0            |
| State Conservation Areas      | 0            |
| State Forests                 | 0            |
| State Fish and Wildlife Areas | 0            |
| Federal Land                  | 0            |

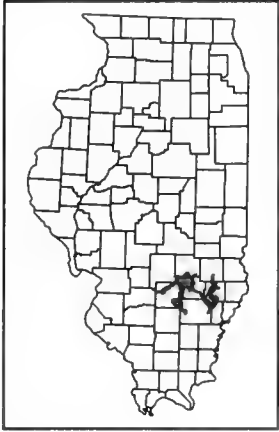
**ILLINOIS NATURE PRESERVES**

|               | <u>Acres</u> |
|---------------|--------------|
| Robeson Hills | 108          |

**NATURAL DIVISIONS**

|                     | <u>Acres</u><br><u>in RRA</u> | <u>% of</u><br><u>RRA</u> | <u>% of</u><br><u>Division</u> |
|---------------------|-------------------------------|---------------------------|--------------------------------|
| Wabash Border       | 156,342                       | 94.0                      | 9.0                            |
| Southern Till Plain | 7,936                         | 4.8                       | 0.1                            |
| Grand Prairie       | 1,956                         | 1.2                       | 0.0                            |





## SOUTHERN TILL PLAIN

*The Southern Till Plain RRA is the second largest RRA. In presettlement times rolling prairies between broad woodlands following stream corridors characterized the region. The area is now largely agricultural. The soils have a high clay content and are fairly poor. Of the five watersheds that comprise this RRA, four drain to the Little Wabash River and one drains to the Kaskaskia River.*

**LANDCOVER** ♦ The Southern Till Plain RRA is predominantly cropland (58%), followed by grassland (21%). It has the highest acreage of cropland and the second highest acreage of grassland among the RRAs, but due to its large

size, the percentages of these landcover types rank eighth and tenth, respectively. Approximately 19% of the site is wooded. There are moderate amounts of upland and bottomland woods. Bottomland woods are concentrated along the lower portion of the Little Wabash River. The acreage and percentage of nonforested wetlands are low.

**NATURAL AREAS** ♦ Prairie chicken habitat at three separate locations accounts for most of the Natural Area acreage in this site. Notable features at the 15 Natural Areas in this site include grasslands, prairies, aquatic systems, springs, swamps, and forests.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ A single 50-mile stretch of the Little Wabash River is designated as a BSS stream.

**HERITAGE SITES** ♦ There are 31 Heritage sites within the Southern Till Plain RRA. This is a low number given the size of the site. Six significant community types, two plant species, and five animal species are located here.

**STATE AND FEDERAL LAND** ♦ A state fish and wildlife area and Carlyle Lake, an impoundment, comprise the public land within this site.

**NATURE PRESERVES** ♦ Miller Shrub Swamp, a spring-fed wetland, is the only Nature Preserve in this RRA.

**NATURAL DIVISIONS** ♦ Ninety percent of this site lies in the Southern Till Plain Division and ten percent lies in the Wabash Border Division.

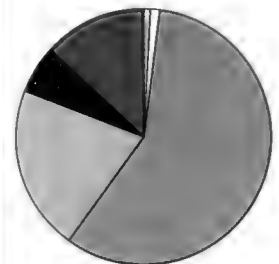
### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LAND

|   |         |
|---|---------|
| Total Acreage                           | 584,788 |
| Natural Areas                           |         |
| Acreage                                 | 6,903   |
| Number                                  | 15      |
| Biologically Significant Stream Mileage | 48.8    |
| Natural Heritage Sites                  | 31      |
| State Land                              |         |
| State Parks                             | 0       |
| State Conservation Areas                | 0       |

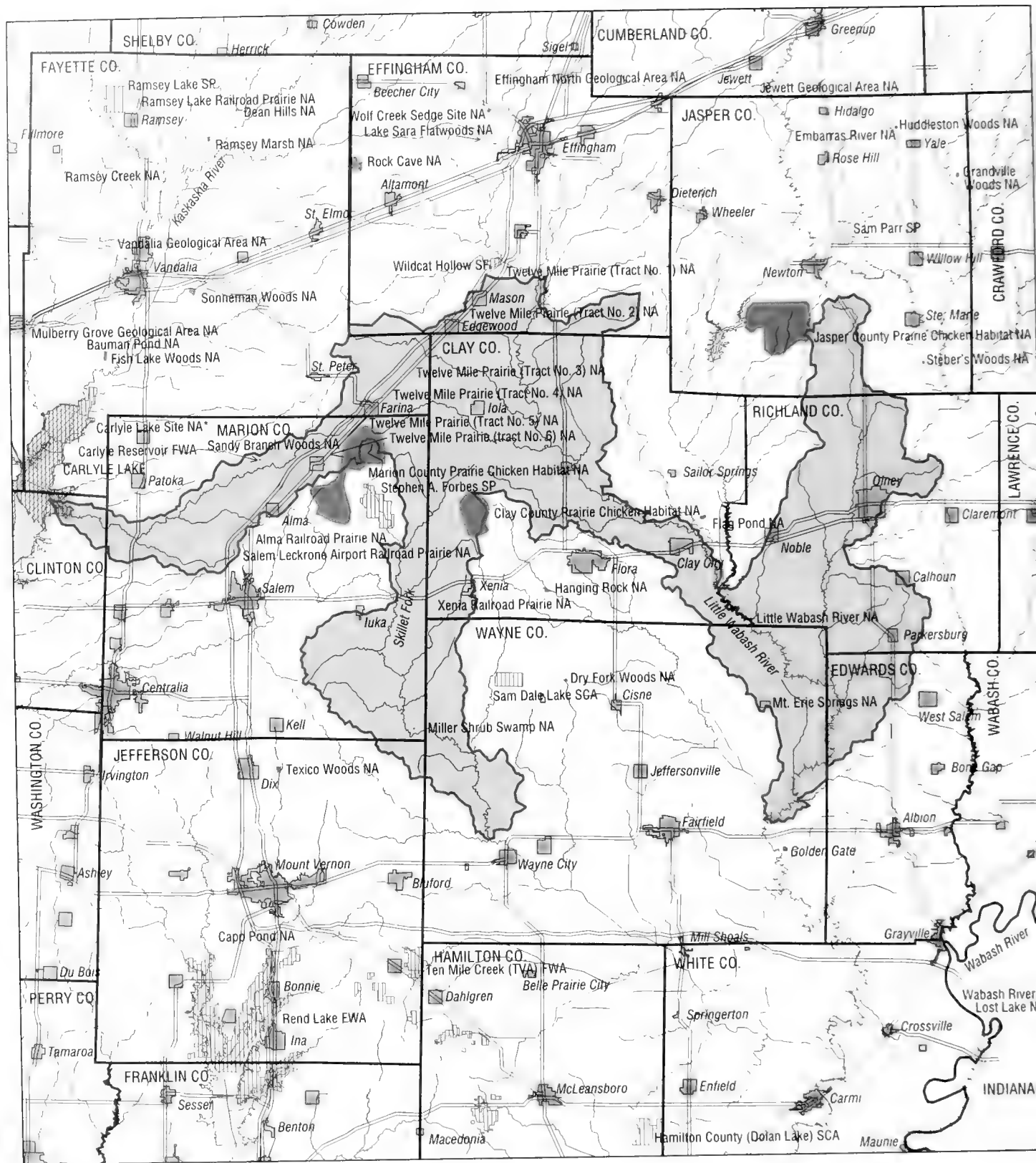
**Size:**  
584,788 acres  
914 square miles.

**Location:**  
South-central Illinois; Clay, Clinton, Edwards, Effingham, Fayette, Jasper, Jefferson, Marion, Richland, and Wayne counties.


Landcover at a Glance







- upland forest 13%
- bottomland forest 6%
- wetland <1%
- grassland 21%
- cropland 58%
- urban built-up 1%
- water <1%



## Southern Till Plain

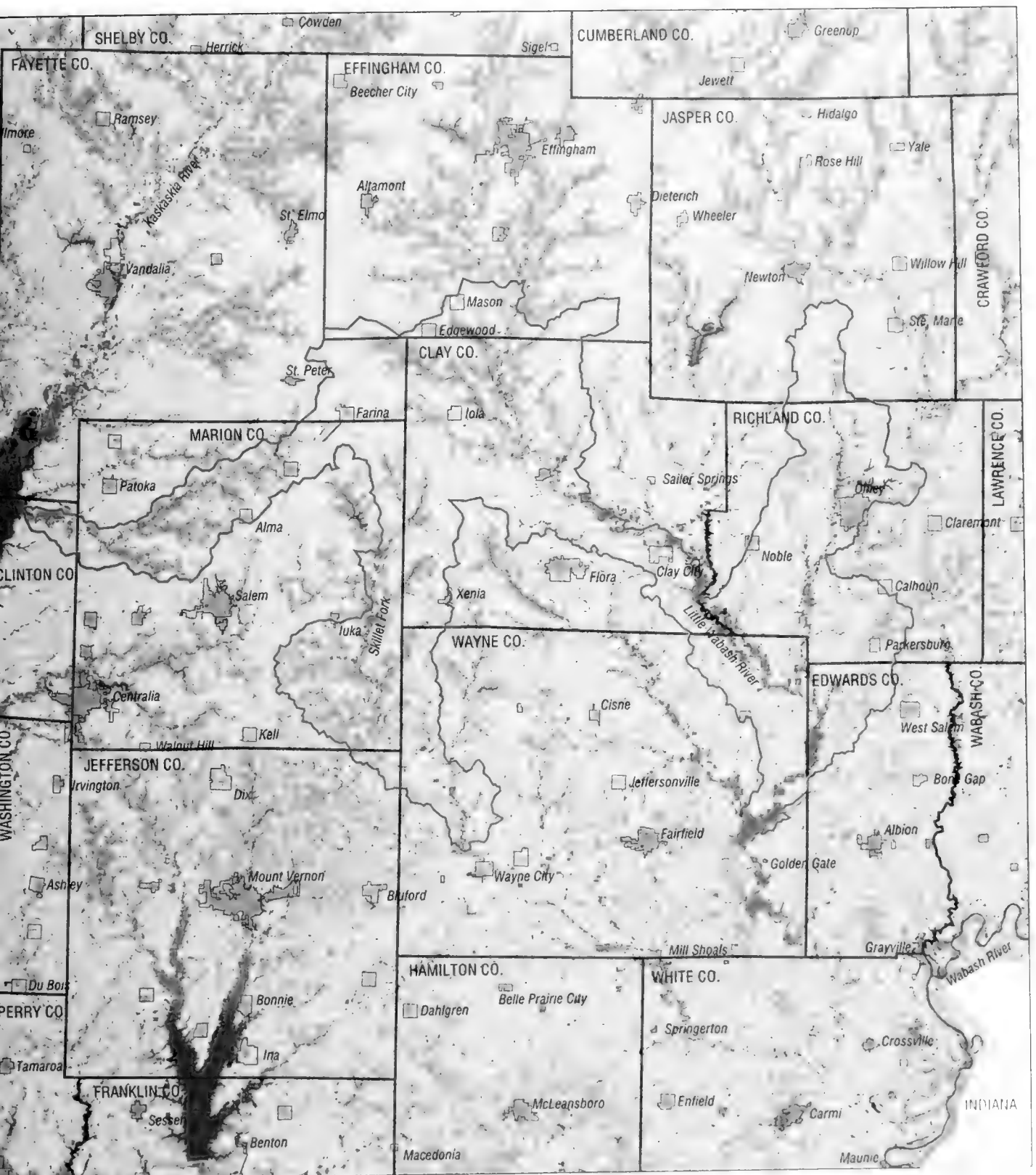
-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

9 Miles







## Southern Till Plain



9 Miles

**T**oday about 2,000 acres of high-quality, relatively undisturbed prairie, or about .01% of the original native prairie, exists in Illinois. Many remnants persist along railroad rights-of-way. Twelve Mile Prairie is an example of a dry-mesic prairie along a railroad line. The lack or abandonment of cultivation has helped to maintain the native prairie vegetation.

|  |                    |                      |
|--|--------------------|----------------------|
| State Forests                                      |                    | 0                    |
| <b>SUMMARY OF SITE CHARACTERISTICS (continued)</b> |                    |                      |
| State Fish & Wildlife Areas                        |                    | 1                    |
| Acreage  |                    | 554                  |
| Percentage of RRA                                  |                    | 0.1                  |
| Federal Land                                       |                    |                      |
| Acreage  |                    | 682                  |
| Percentage of RRA                                  |                    | 0.1                  |
| <b>LANDCOVER</b>                                   | <u>Acres</u>       | <u>% of RRA</u>      |
| Upland forest                                      | 77,292.91          | 13.22                |
| Bottomland forest                                  | 33,609.18          | 5.75                 |
| Wetland- nonforested                               | 981.86             | 0.17                 |
| Grassland  | 121,895.50         | 20.84                |
| Cropland   | 341,724.90         | 58.44                |
| Urban-Built-up                                     | 6,193.05           | 1.06                 |
| Water  | 3,087.29           | 0.53                 |
| TOTAL  | 584,784.69         | 100.01               |
| <b>ILLINOIS NATURAL AREAS INVENTORY SITES</b>      | <u>Acres</u>       |                      |
| Clay County Prairie Chicken Habitat                | 2,957              |                      |
| Jasper County Prairie Chicken Habitat              | 98                 |                      |
| Little Wabash River                                | 593                |                      |
| Marion County Prairie Chicken Habitat              | 3,032              |                      |
| Miller Shrub Swamp                                 | 22                 |                      |
| Mt. Erie Springs                                   | 7                  |                      |
| Salem Leckrone Airport Railroad Prairie            | 3                  |                      |
| Sandy Branch Woods                                 | 17                 |                      |
| Twelve Mile Prairie (Tract No. 1)                  | 12                 |                      |
| Twelve Mile Prairie (Tract No. 2)                  | 15                 |                      |
| Twelve Mile Prairie (Tract No. 3)                  | 11                 |                      |
| Twelve Mile Prairie (Tract No. 4)                  | 28                 |                      |
| Twelve Mile Prairie (Tract No. 5)                  | 78                 |                      |
| Twelve Mile Prairie (Tract No. 6)                  | 26                 |                      |
| Xenia Railroad Prairie                             | 5                  |                      |
| <b>BIOLOGICALLY SIGNIFICANT STREAMS</b>            | <u>Miles</u>       |                      |
| Little Wabash River, Rte 50 to mouth               | 48.8               |                      |
| <b>NATURAL HERITAGE CATEGORIES</b>                 |                    |                      |
| Communities  | <u>Occurrences</u> | <u>Types/Species</u> |
| Lake   | 1                  | 1                    |
| Wetland  | 2                  | 2                    |
| Forest   | 1                  | 1                    |
| Prairie  | 8                  | 2                    |
| Threatened and Endangered Animals                  |                    |                      |
| Bird   | 12                 | 2                    |
| Mammal   | 1                  | 1                    |
| Mollusk  | 2                  | 2                    |
| Threatened and Endangered Plants                   |                    |                      |
| Plant-Dicot  | 4                  | 2                    |
| Geological Feature                                 |                    |                      |
| Other  |                    |                      |
| <b>STATE AND FEDERAL LANDS</b>                     | <u>Acres</u>       |                      |
| State Parks  |                    | 0                    |

|                               |               |            |                 |
|-------------------------------|---------------|------------|-----------------|
| State Conservation Areas      |               |            | 0               |
| State Forests                 |               |            | 0               |
| State Fish and Wildlife Areas |               |            |                 |
| Carlyle Reservoir             |               |            | 554             |
| Federal Land                  |               |            |                 |
| Carlyle Lake                  |               |            | 682             |
| ILLINOIS NATURE PRESERVES     |               |            | <u>Acres</u>    |
| Miller Shrub Swamp            |               |            | 30              |
| NATURAL DIVISIONS             | Acres         | % of       | % of Natural    |
|                               | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Southern Till Plain           | 526,041       | 90.0       | 7.4             |
| Wabash Border                 | 58,748        | 10.0       | 3.4             |

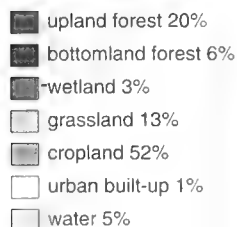
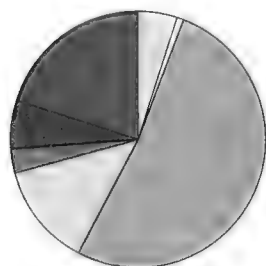
Open areas of agriculture interspersed with grasslands are the preferred habitat for the loggerhead shrike in Illinois. This species has the interesting behavior of impaling its prey—larger insects, small mammals, birds, reptiles, and amphibians—on thorns and fences. The loggerhead shrike is most numerous in the southern third of the state. Populations in north and central Illinois declined steadily and were almost eliminated by 1972 due in part to the loss of hedgerows. The loggerhead shrike is a state-threatened species.

**Size:**

291,305 acres  
455 square miles

**Location:**

Southwestern  
Illinois along the  
Mississippi River  
near St. Louis;  
Madison, Monroe,  
Randolph, and St.  
Clair counties.

**Landcover at a Glance**

## KARST/CAVE AREA

*The Karst/Cave Area RRA includes Mississippi bottomlands and part of the Ozark plateau.*

*Exceptional features are its limestone bedrock, numerous caves and sinkholes, old growth forest, and unique flora and fauna. The area originally contained large areas of forest, prairie, and wetland.*

**LANDCOVER** ♦ This RRA is half cropland and one-fourth wooded. It has relatively moderate percentages of upland and bottomland woods. This site ranks second in acreage and seventh in percentage of nonforested wetlands among the 30 RRAs.

**NATURAL AREAS** ♦ The Karst/Cave RRA has the second highest acreage of Natural Areas. Over nine percent of this large site is covered by Natural Area sites. Of the 27 Natural Areas, seven sites are larger than 1,000 acres. Significant natural features are caves, hill prairies, springs, marshes, herpetological areas, and rookeries.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Designated BSS streams in this RRA include a short length of the Mississippi River and a tributary to Horse Creek, which total 2.9 miles.

**HERITAGE SITES** ♦ A moderate number of Heritage sites (92) occurs here. Eight significant communities types occur here along with nine plant species, 18 animal species, and two rookeries. There are 14 cave occurrences.

**STATE AND FEDERAL LAND** ♦ Horseshoe Lake State Park and Kaskaskia State Fish and Wildlife Area are the only state or federal land in this site.

**NATURE PRESERVES** ♦ There are four Nature Preserves in this site. High quality terrestrial cave and aquatic cave communities, hill prairies, and old growth forest remnants are important natural features of these preserves.

**NATURAL DIVISIONS** ♦ Five natural divisions comprise this RRA. Most of the area is Lower Mississippi River Bottomlands (43%), Ozarks (28%), and Southern Till Plain (18%). Over a third of the state's Lower Mississippi River Bottomlands Division and 20% of the Ozark Division occurs in this RRA.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 291,305 |
| Natural Areas                           |         |
| Acreage                                 | 26,230  |
| Number                                  | 27      |
| Biologically Significant Stream Mileage | 2.9     |
| Natural Heritage Sites                  | 92      |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 1       |



|                   |       |
|-------------------|-------|
| Acreage           | 3,364 |
| Percentage of RRA | 1.2   |
| Federal Land      |       |
| Acreage           | 0     |
| Percentage of RRA | 0.0   |

| LANDCOVER            | <u>Acres</u>    | <u>% of RRA</u> |
|----------------------|-----------------|-----------------|
| Upland forest        | 38,763.36       | 20.37           |
| Bottomland forest    | 11,214.97       | 5.89            |
| Wetland- nonforested | 5,383.39        | 2.83            |
| Grassland            | 24,700.95       | 12.98           |
| Cropland             | 99,215.85       | 52.15           |
| Urban/Built-up       | 2,155.40        | 1.13            |
| Water                | <u>8,818.51</u> | <u>4.64</u>     |
| Total                | 190,252.43      | 99.99           |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|  | <u>Acres</u> |
|--|--------------|
| Bradley Branch Woods                                 | 30           |
| Chalfin Bridge Hill Prairie                          | 220          |
| Chouteau Catchfly Site                               | 2            |
| Columbia Hill Prairie                                | 476          |
| Demint Prairie/Prairie Du Rocher Herpetological Site | 483          |
| Dry Run Cave System                                  | 3,831        |
| Dupo Prairie   | 13           |
| Eagle Park Marsh                                     | 106          |
| East St. Louis (Alorton) Heron Colony                | 2            |
| Falling Spring                                       | 797          |
| Fogelpole Cave                                       | 9,319        |
| Fults Hill Prairie--Kidd Lake Marsh                  | 1,268        |
| Illinois Caverns Cave System                         | 2,747        |
| Madonnville Cave                                     | 480          |
| Miles Prairie  | 51           |
| Mississippi River -Mudds Landing                     | 1,075        |
| Modoc Northwest Geological Area                      | 3            |
| Monroe City Hill Prairie                             | 104          |
| Potato Hill Hill Prairie                             | 667          |
| Prairie Du Rocher-south                              | 89           |
| Renault Cave System                                  | 1,073        |
| Renault Geological Area                              | --           |
| Renault Herpetological Area                          | 249          |
| Salt peter Cave Area                                 | 27           |
| Stemler Cave Area                                    | 2,812        |
| Stemler Cave Woods                                   | 177          |
| Sugar Loaf Hill Prairie                              | 53           |

## BIOLOGICALLY SIGNIFICANT STREAMS

|   |       |
|---|-------|
| Mississippi River, rm 114-119, Randolph Co. | Miles |
| Tributary to Horse Creek                    | 1.9   |
|   | 1.0   |

## NATURAL HERITAGE CATEGORIES

| Communities | <u>Occurrences</u> | <u>Types./Species</u> |
|-------------|--------------------|-----------------------|
| Cave        | 14                 | 2                     |
| Forest      | 5                  | 4                     |
| Prairie     | 11                 | 1                     |
| Primary     | 4                  | 1                     |

**M**ore than 480 caves occur in Illinois. The caves of the Sinkhole Plain in Monroe and St. Clair counties are the most numerous and interesting in the state. In Illinois, caves are found in areas of major limestone or dolomite outcrops called karsts. A few animals have adapted to the dark, cool, and humid environment of the deep caves. Some are both blind and colorless, such as isopods, amphipods, pseudo-scorpions, and springtails.





## Karst/Cave Area



7 Miles

**O**f the twelve species of bats that occur in Illinois, nine are called cave bats because they generally hibernate in caves or abandoned mines. A Monroe County cave is one of two known hibernation sites for the federally endangered Indiana bat. Gray bats, also a federally endangered species, are limited in Illinois to southern and west-central parts of the state where there are numerous caves. Two other species, the southeastern bat and Rafinesque's big-eared bat, are endangered in Illinois and are found only in the southernmost part of the state.

NATURAL HERITAGE CATEGORIES (*continued*)

|                                   | <u>Occurrences</u>            | <u>Types/Species</u>                            |
|-----------------------------------|-------------------------------|---|
| Threatened and Endangered Animals |                               |   |
| Amphibian                         | 2                             | 1   |
| Bird                              | 17                            | 1   |
| Fish                              | 1                             | 1   |
| Mammal                            | 1                             | 1   |
| Reptile                           | 7                             | 3   |
| Crustacean                        | 4                             | 2   |
| Threatened and Endangered Plants  |                               |   |
| Plant-Dicot                       | 18                            | 8   |
| Plant-Monocot                     | 2                             | 1   |
| Geological Feature                |                               |   |
| Geological Feature                | 4                             | 1   |
| Other                             |                               |   |
| Rookery                           | 2                             | 1   |
| STATE AND FEDERAL LAND            |                               |   |
| State Parks                       |                               | <u>Acres</u>                                    |
| Horseshoe Lake                    |                               | 3,040   |
| State Conservation Areas          |                               | 0   |
| State Forests                     |                               | 0   |
| State Fish and Wildlife Areas     |                               |   |
| Kaskaskia                         |                               | 324   |
| Federal Land                      |                               | 0   |
| ILLINOIS NATURE PRESERVES         |                               | <u>Acres</u>                                    |
| Armin Krueger Speleological       |                               | 119   |
| Fogelpole Cave                    |                               | 26  |
| Fults Hill Prairie                |                               | 427   |
| Stemler Cave Woods                |                               | 118   |
| NATURAL DIVISIONS                 | <u>Acres</u><br><u>in RRA</u> | <u>% of RRA</u><br><u>% of Natural Division</u> |
| Lower Mississippi R Bottomlands   | 124,504                       | 43.0 34.7                                       |
| Ozarks                            | 82,675                        | 28.5 20.4                                       |
| Southern Till Plain               | 53,528                        | 18.5 0.7  |
| Middle Mississippi Border         | 15,275                        | 5.3 1.0   |
| Major Water Bodies                | 13,813                        | 4.8 1.2   |







## LOWER WABASH RIVER

*The Lower Wabash River RRA includes the mainstem of the Wabash River below Lawrenceville to its confluence with the Ohio River and its small tributaries. The lower Wabash River watershed encompasses bottomland forest with wet prairie, sloughs, oxbows, and marshes. The lower reaches of the river have a sand, gravel, and rock substrate and feature pools and riffles.*

**LANDCOVER** ♦ Cropland is the predominant landcover in this RRA; two-thirds of the area is cropland. This site has the third highest percentage of cropland among the RRAs. Eighteen percent of this site is wooded. Bottomland forest

is a significant natural resource in this RRA; this RRA ranks second in percentage of bottomland forest. Moderate amounts of nonforested wetlands are present.

**NATURAL AREAS** ♦ Twelve Natural Areas are located in this RRA. Most of the acreage is in Wabash River sites. Other features include woods, sloughs, and ponds.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ The Lower Wabash River RRA ranks fourth in BSS streams mileage (75.5 miles), most of which is the Wabash River.

**HERITAGE SITES** ♦ Thirty-four Heritage sites occur here. Five community types, two plant species, and 13 animal species are represented.

**STATE AND FEDERAL LAND** ♦ Beall Woods State Park and Beall Woods Conservation Area are the only state or federal land which occurs in this RRA.

**NATURE PRESERVES** ♦ Beall Woods is the only Nature Preserve within this RRA. It is the largest and best remnant of the immense forests which originally occurred along the Wabash.

**NATURAL DIVISIONS** ♦ The site lies almost entirely within the Wabash Border Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 163,894 |
| Natural Areas                           |         |
| Acreage                                 | 4,639   |
| Number                                  | 12      |
| Biologically Significant Stream Mileage | 75.5    |
| Natural Heritage Sites                  | 34      |
| State Land                              |         |
| State Parks                             | 1       |
| State Conservation Areas                | 1       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |
| Acreage                                 | 1,261   |
| Percentage of RRA                       | 0.8     |
| Federal Land                            |         |
| Acreage                                 | 0       |
| Percentage of RRA                       | 0.0     |

### Size:

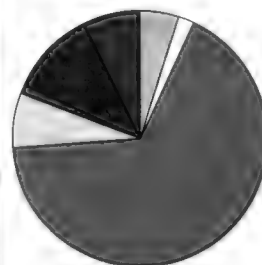
163,894 acres

256 square miles

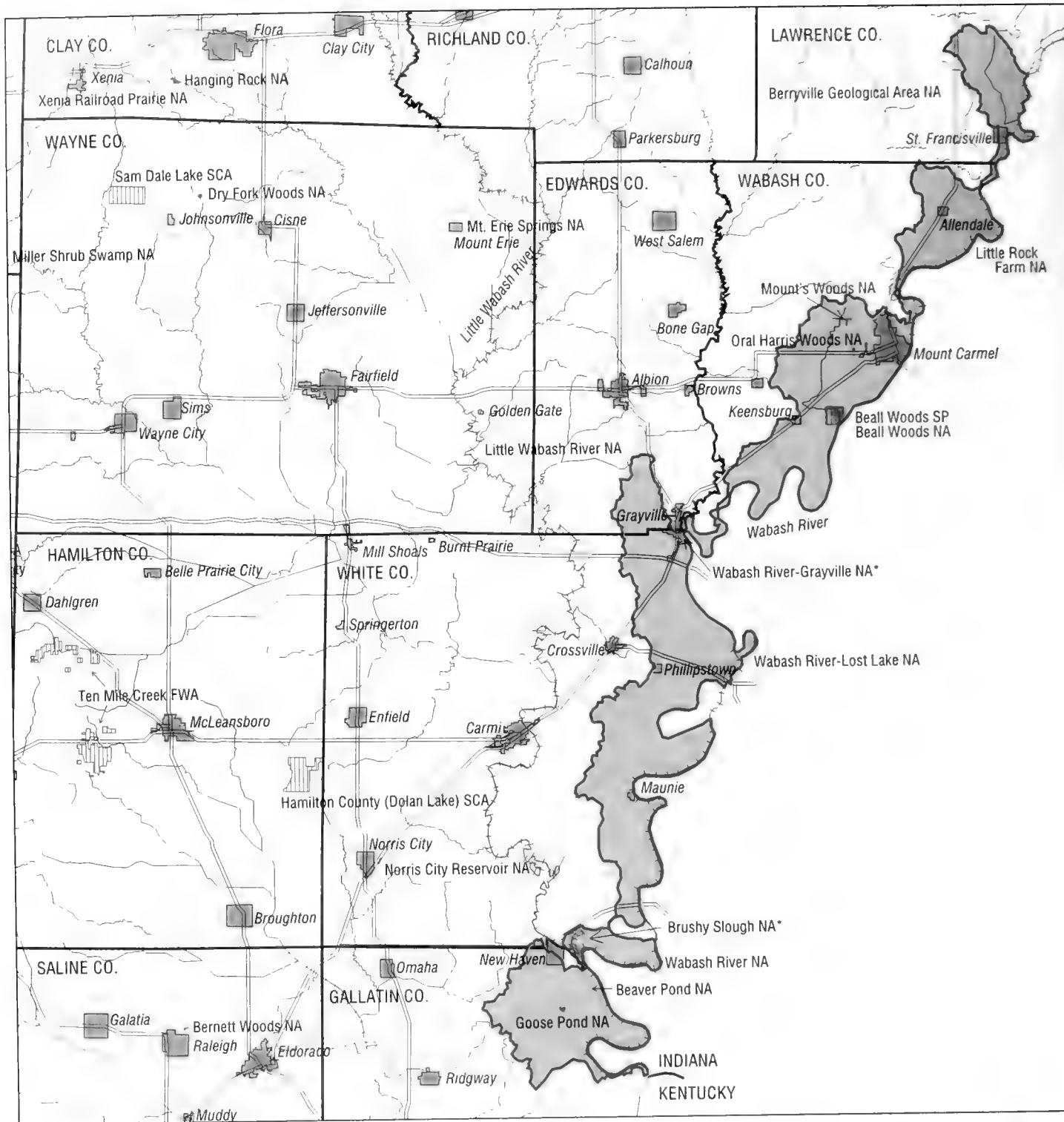
### Location:

Southeastern Illinois along the Indiana border; Edwards, Gallatin, Lawrence, Wabash, and White counties.

### Landcover at a Glance







|                   |     |
|-------------------|-----|
| upland forest     | 7%  |
| bottomland forest | 11% |
| wetland           | <1% |
| grassland         | 7%  |
| cropland          | 67% |
| urban built-up    | 2%  |
| water             | 5%  |



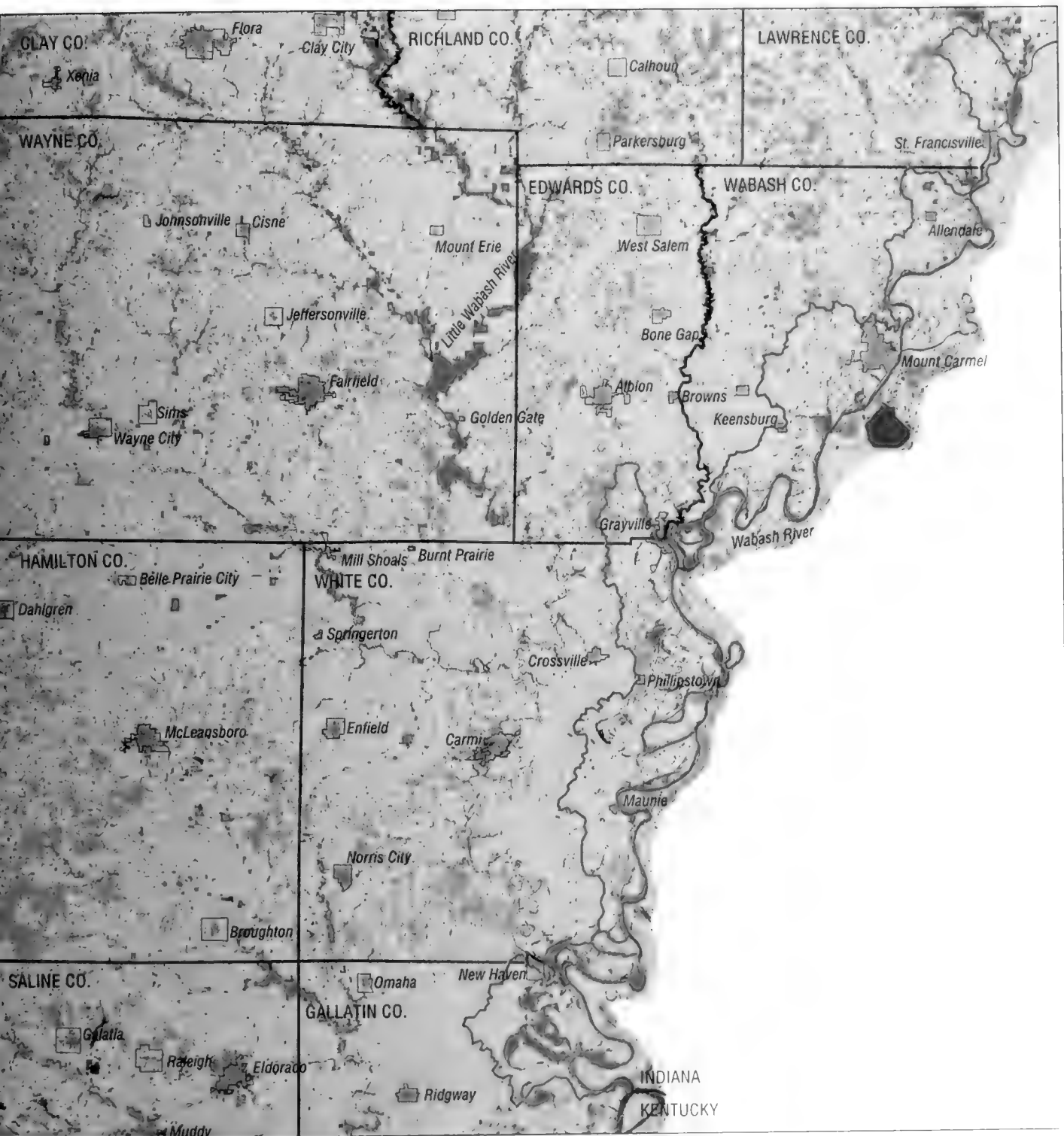
## Lower Wabash River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

8 Miles





## Lower Wabash River



**T**he bottomlands of the lower Wabash River are the last strongholds of the eastern deciduous forests in Illinois. Fertile, deep, and moist soil has promoted dense growth. The immense size of the trees (some are over 130 feet tall and six feet in diameter) as well as the diversity of species are remarkable features of the woods. Many of the trees have been harvested and the remaining forests in the area were considered remnants as early as 1876. Beall Woods Nature Preserve is the largest and best example of the original forests that occurred along the Wabash River; several state tree champions are present in this preserve.

SUMMARY OF SITE CHARACTERISTICS (*continued*)

| LANDCOVER            | Acres           | % of RRA    |
|----------------------|-----------------|-------------|
| Upland forest        | 12,030.65       | 7.34        |
| Bottomland forest    | 17,885.50       | 10.91       |
| Wetland- nonforested | 1,447.51        | 0.88        |
| Grassland            | 12,246.01       | 7.47        |
| Cropland             | 109,717.10      | 66.94       |
| Urban/Built-up       | 3,183.43        | 1.94        |
| Water                | <u>7,385.06</u> | <u>4.51</u> |
| TOTAL                | 163,895.26      | 99.99       |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                           | Acres |
|---------------------------|-------|
| Beall Woods               | 390   |
| Beaver Pond               | 26    |
| Brushy Slough             | *     |
| Goose Pond                | 82    |
| Little Rock Farm          | 47    |
| Little Wabash River       | <1    |
| Mount's Woods             | 71    |
| Oral Harris Woods         | 31    |
| Wabash River              | 2,297 |
| Wabash River-Lost Lake    | 210   |
| Wabash River-Mount Carmel | 1,484 |
| Wabash River-Grayville    | *     |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|   | Miles |
|---|-------|
| Brushy Slough                           | 4.0   |
| Little Wabash River, Rte 50 to mouth    | 0.0   |
| Wabash River, Clark Co. to White River  | 27.4  |
| Wabash River, New Harmony to Ohio River | 44.1  |

## NATURAL HERITAGE CATEGORIES

| Communities                       | Occurrences | Types/Species |
|-----------------------------------|-------------|---------------|
| Floodplain Forest                 | 1           | 1             |
| Lake                              | 1           | 1             |
| Wetland                           | 1           | 1             |
| Forest                            | 3           | 1             |
| Primary                           | 1           | 1             |
| Threatened and Endangered Animals |             |               |
| Amphibian                         | 1           | 1             |
| Fish                              | 4           | 2             |
| Mammal                            | 2           | 1             |
| Reptile                           | 3           | 2             |
| Crustacean                        | 1           | 1             |
| Mollusk                           | 14          | 6             |
| Threatened and Endangered Plants  |             |               |
| Plant-Dicot                       | 2           | 2             |
| Geological Feature                |             |               |
| Other                             |             |               |

## STATE AND FEDERAL LAND

|                          | Acres |
|--------------------------|-------|
| State Parks              | 632   |
| State Conservation Areas |       |
| Beall Woods              | 629   |

|                               |               |            |                 |
|-------------------------------|---------------|------------|-----------------|
| State Forests                 |               |            | 0               |
| State Fish and Wildlife Areas |               |            | 0               |
| Federal Land                  |               |            | 0               |
| ILLINOIS NATURE PRESERVES     |               |            | <u>Acres</u>    |
| Beall Woods                   |               |            | 348             |
| NATURAL DIVISIONS             | Acres         | % of       | % of            |
|                               | <u>in RRA</u> | <u>RRA</u> | <u>Division</u> |
| Wabash Border                 | 159,587       | 99.6       | 9.2             |
| Southern Till Plain           | 591           | 0.4        | 0.0             |



**T**he Wabash River, the second largest tributary to the Ohio River, forms almost 200 miles of the lower border between Illinois and Indiana. Historically, the Wabash River has supported 27 state-threatened or state-endangered mussel species, including eight which are federally endangered. Mussel populations are greatly reduced in numbers of individuals and species in the Wabash, as is the case in the rest of Illinois and the U.S.

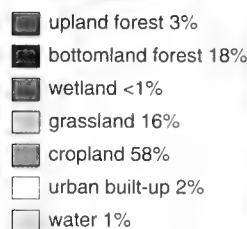
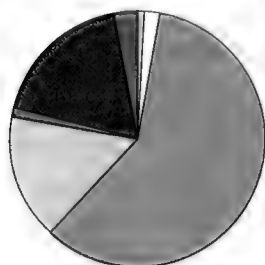
**Size:**

197,654 acres

309 square miles

**Location:**

South-central  
Illinois; Clinton,  
Monroe, St. Clair,  
and Washington  
counties.

**Landcover at a Glance**

## KASKASKIA BOTTOMS

*The predominant natural features of the Kaskaskia Bottoms RRA are the large tracts of bottomland forest associated with the river and the river itself. The river in this area is fairly wide (up to 100 feet) with a sand, gravel, cobble, and silt substrate.*

**LANDCOVER** ♦ The principal landcover is cropland (58%), followed by bottomland woods (18%). Overall the site is 21% forested. The Kaskaskia Bottoms site ranks first in percentage of bottomland woods and last in percentage of upland forest. Moderate amounts of nonforested wetlands are present.

**NATURAL AREAS** ♦ Most of the ten Natural Area sites in this RRA are notable for their forest resources.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ The upper portion of the Kaskaskia River is designated a BSS stream for 31 miles of its length within this RRA.

**HERITAGE SITES** ♦ Seven community types, one plant species, five animal species, and three large forest tracts are included in the 28 Heritage sites within this RRA.

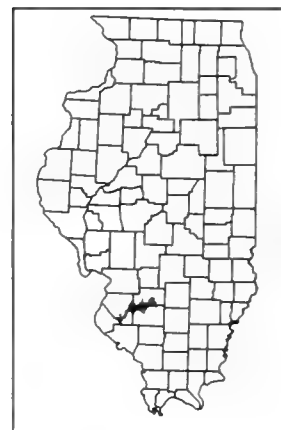
**STATE AND FEDERAL LAND** ♦ State land in this RRA includes the Kaskaskia Fish and Wildlife Area (6,911 acres) and a portion of South Shore State Park (5 acres). Federal land consists of a portion of Carlyle Lake.

**NATURE PRESERVES** ♦ There are no Nature Preserves within this RRA.

**NATURAL DIVISIONS** ♦ This site lies entirely within the Southern Till Plain Natural Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |              |                 |
|---|--------------|-----------------|
| Total Acreage                           | 197,654      |                 |
| Natural Areas                           |              |                 |
| Acreage                                 |              | 1,681           |
| Number                                  |              | 10              |
| Biologically Significant Stream Mileage |              | 31.1            |
| Natural Heritage Sites                  |              | 28              |
| State Land                              |              |                 |
| State Parks                             |              | 1               |
| State Conservation Areas                |              | 0               |
| State Forests                           |              | 0               |
| State Fish & Wildlife Areas             |              | 1               |
| Acreage                                 |              | 6,916           |
| Percentage of RRA                       |              | 3.5             |
| Federal Land                            |              |                 |
| Acreage                                 |              | 494             |
| Percentage of RRA                       |              | 0.2             |
| LANDCOVER                               | <u>Acres</u> | <u>% of RRA</u> |
| Upland forest                           | 6,743.79     | 3.41            |
| Bottomland forest                       | 35,538.79    | 17.98           |



|                      |                 |             |
|----------------------|-----------------|-------------|
| Wetland- nonforested | 1,447.51        | 0.73        |
| Grassland            | 31,688.60       | 16.03       |
| Cropland             | 115,153.10      | 58.26       |
| Urban/Built-up       | 4,127.76        | 2.09        |
| Water                | <u>2,944.99</u> | <u>1.49</u> |
| TOTAL                | 197,644.54      | 99.99       |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|                                 |              |
|---------------------------------|--------------|
| Baer Brothers Woodlot           | <u>Acres</u> |
| Eversgerd Flatwoods             | 25           |
| Freeburg Rod and Gun Club       | 53           |
| Jackson Slough Woods            | 91           |
| Lively Branch Woods             | 184          |
| Lost Creek Marsh                | 70           |
| New Athens Woods                | 714          |
| Sipple Slough Woods             | 198          |
| West End Sportsman's Club Woods | 196          |
| Wirth Island                    | 58           |
|                                 | 92           |

## BIOLOGICALLY SIGNIFICANT STREAMS

|  |              |
|--|--------------|
| Kaskaskia River, Rte 50 to Shoal Creek | <u>Miles</u> |
|  | 31.1         |

## NATURAL HERITAGE CATEGORIES

|                                   |                    |                      |
|-----------------------------------|--------------------|----------------------|
| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
| Floodplain Forest                 | 7                  | 2                    |
| Wetland                           | 1                  | 1                    |
| Forest                            | 10                 | 4                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 1                  | 1                    |
| Mammal                            | 1                  | 1                    |
| Reptile                           | 2                  | 2                    |
| Mollusk                           | 1                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 2                  | 1                    |
| Geological Feature                |                    |                      |
| Other                             |                    |                      |
| Forest Block >500 Acres           | 3                  | 1                    |

## STATE AND FEDERAL LAND

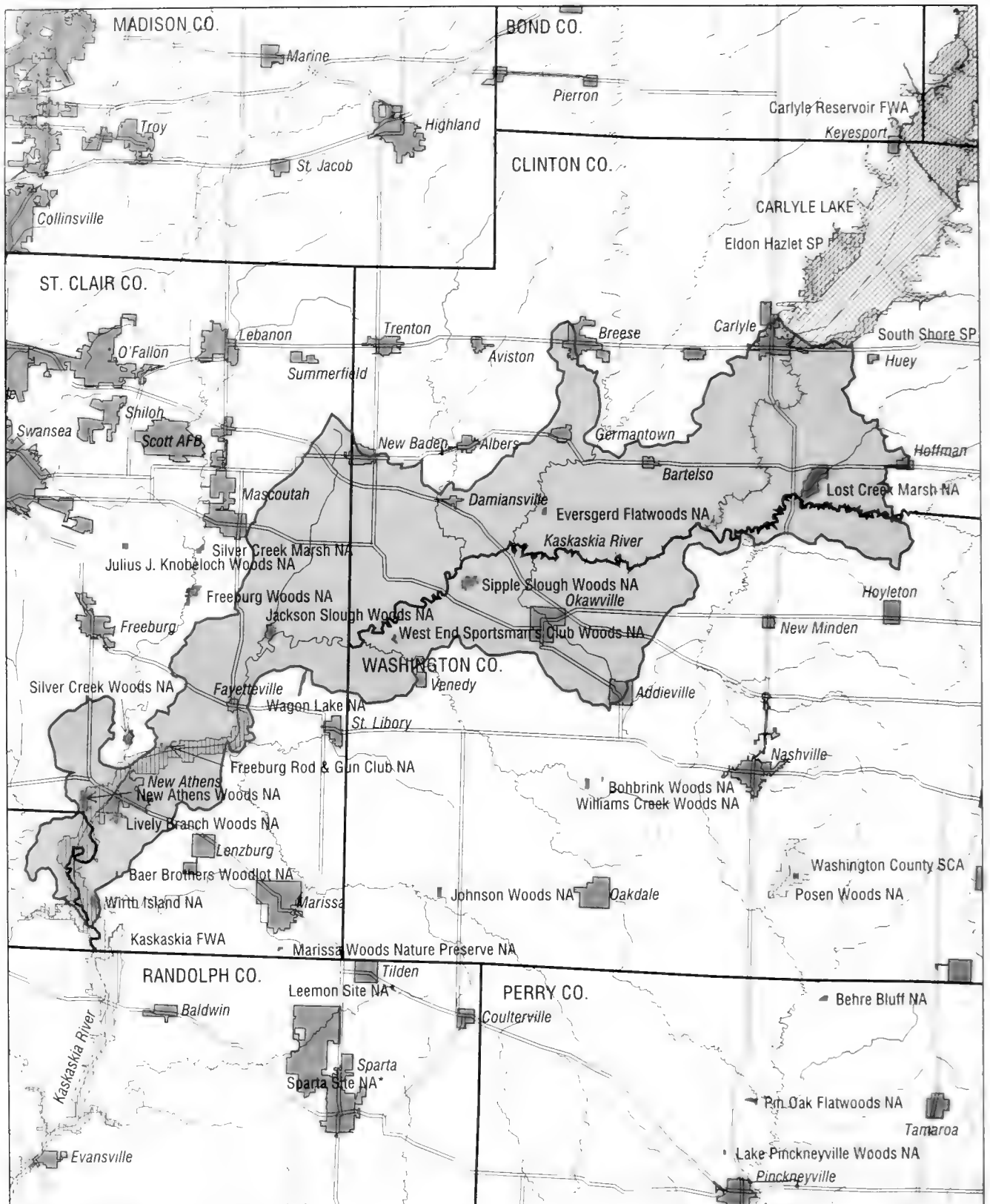
|                                       |              |
|---------------------------------------|--------------|
| State Parks                           | <u>Acres</u> |
| South Shore                           | 5            |
| State Conservation Areas              | 0            |
| State Forests                         | 0            |
| State Fish and Wildlife Areas         |              |
| Kaskaskia                             | 6,911        |
| Federal Land                          |              |
| Carlyle Lake                          | 489          |
| South Shore State Park - Carlyle Lake | 5            |

## ILLINOIS NATURE PRESERVES

None

|                     |               |            |                 |
|---------------------|---------------|------------|-----------------|
| NATURAL DIVISIONS   | Acres         | % of       | % of            |
|                     | <u>in RRA</u> | <u>RAA</u> | <u>Division</u> |
| Southern Till Plain | 197,654       | 100.0      | 2.8             |

A complex of interconnected floodplain forests, wetlands, and flatwoods characterize the Kaskaskia bottomlands. Large, contiguous forest stands are rare in Illinois, and the largest tract in the state is located in this area. Large, unbroken forest is critical for the successful reproduction of many woodland bird species. Declines in population of some neotropical migratory songbirds have been attributed in part to forest fragmentation, which is widespread in the Midwest.



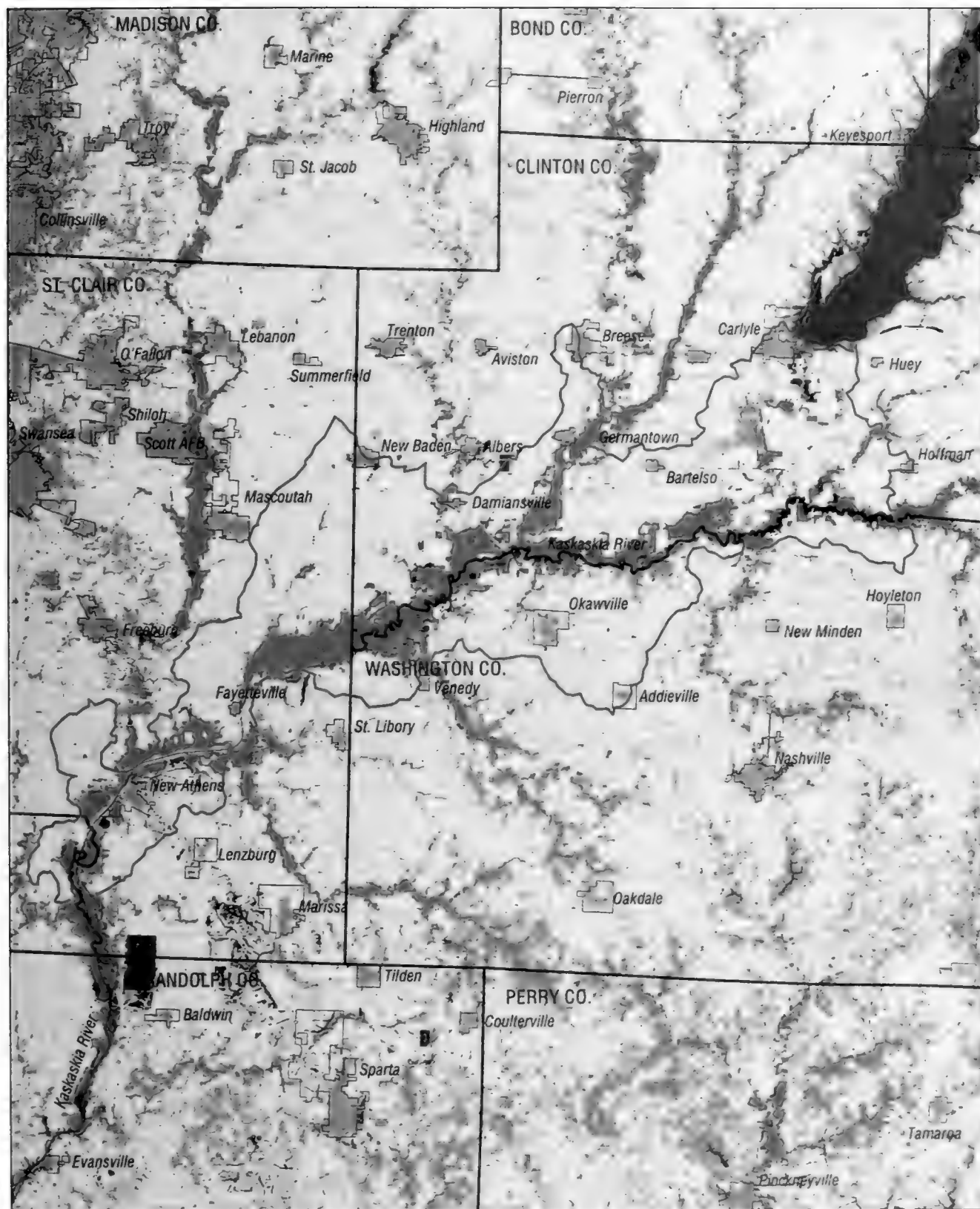
## Kaskaskia Bottoms



7 Miles







## Kaskaskia Bottoms

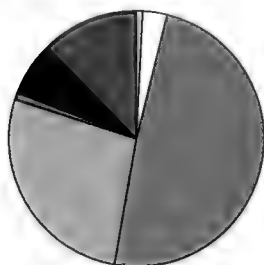


7 Miles

**Size:**  
114,908 acres  
180 square miles

**Location:**  
Southern Illinois;  
Franklin, Hamilton,  
and Jefferson  
counties.

Landcover at a Glance



upland forest 12%  
 bottomland forest 7%  
 wetland <1%  
 grassland 27%  
 cropland 49%  
 urban built-up 3%  
 water <1%

## MIDDLE FORK OF THE BIG MUDDY

*The Middle Fork of the Big Muddy River RRA is a small, single watershed site. The significant natural features are the large tracts of forest located along the river.*

**LANDCOVER** ♦ Approximately half the landcover in this RRA is cropland. It ranks fifth in percentage of grassland, which accounts for 27% of the land area. Nineteen percent of the area is wooded. This RRA ranks eighth for percentage of bottomland woods and 15th for percentage of nonforested wetlands.

**NATURAL AREAS** ♦ The Freeman Coal Company Forest is the only Natural Area.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ There are no BSS streams.

**HERITAGE SITES** ♦ Two Heritage sites, a floodplain forest and one animal species, are located in the RRA.

**STATE AND FEDERAL LAND** ♦ A 22-acre site, Ten Mile Creek Fish and Wildlife Area, is the only state or federal land.

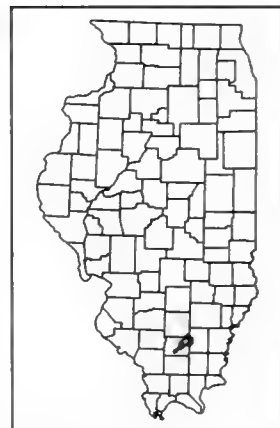
**NATURE PRESERVES** ♦ No Nature Preserves are located in the site.

**NATURAL DIVISIONS** ♦ The Middle Fork of the Big Muddy River RRA is entirely within the Southern Till Plain Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 114,908 |
| Natural Areas                           |         |
| Acreage                                 | 388     |
| Number                                  | 1       |
| Biologically Significant Stream Mileage | 0       |
| Natural Heritage Sites                  | 2       |
| State Land                              |         |
| State Parks                             | 0       |
| State Conservation Areas                | 0       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 1       |
| Acreage                                 | 22      |
| Percentage of RRA                       | 0.0     |
| Federal Land                            |         |
| Acreage                                 | 0       |
| Percentage of RRA                       | 0.0     |

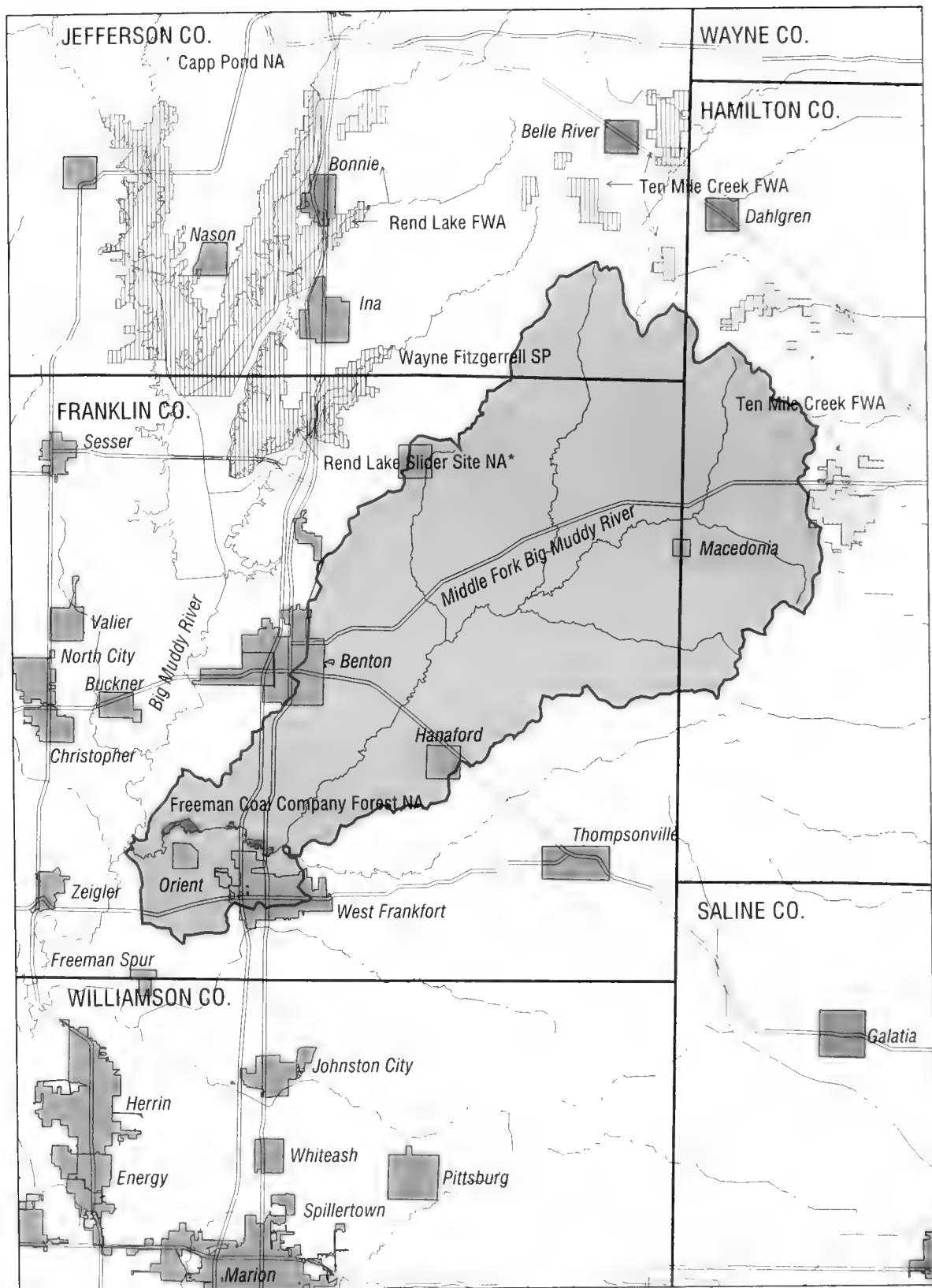
| LANDCOVER            | Acres     | % of RRA |
|----------------------|-----------|----------|
| Upland forest        | 13,903.45 | 12.10    |
| Bottomland forest    | 8,404.05  | 7.31     |
| Wetland- nonforested | 832.34    | 0.72     |
| Grassland            | 31,218.95 | 27.17    |
| Cropland             | 56,449.57 | 49.13    |
| Urban/Built-up       | 3,164.97  | 2.75     |



|  |                    |                      |                 |
|--|--------------------|----------------------|-----------------|
| Water                                  | <u>934.30</u>      | <u>0.81</u>          |                 |
| TOTAL                                  | 114,907.63         | 99.99                |                 |
| ILLINOIS NATURAL AREAS INVENTORY SITES |                    | <u>Acres</u>         |                 |
| Freeman Coal Company Forest            |                    | 388                  |                 |
| BIOLOGICALLY SIGNIFICANT STREAMS       |                    |                      |                 |
| None                                   |                    |                      |                 |
| NATURAL HERITAGE CATEGORIES            |                    |                      |                 |
| Communities                            | <u>Occurrences</u> | <u>Types/Species</u> |                 |
| Floodplain Forest                      | 1                  | 1                    |                 |
| Threatened and Endangered Animals      |                    |                      |                 |
| Mammal                                 | 1                  | 1                    |                 |
| Threatened and Endangered Plants       |                    |                      |                 |
| Geological Feature                     |                    |                      |                 |
| Other                                  |                    |                      |                 |
| STATE AND FEDERAL LAND                 |                    | <u>Acres</u>         |                 |
| State Parks                            |                    | 0                    |                 |
| State Conservation Areas               |                    | 0                    |                 |
| State Forests                          |                    | 0                    |                 |
| State Fish and Wildlife Areas          |                    |                      |                 |
| Ten Mile Creek (Tva)                   |                    | 22                   |                 |
| Federal Land                           |                    | 0                    |                 |
| ILLINOIS NATURE PRESERVES              |                    |                      |                 |
| None                                   |                    |                      |                 |
| NATURAL DIVISIONS                      | Acres              | % of                 | % of            |
|  | <u>in RRA</u>      | <u>RAA</u>           | <u>Division</u> |
| Southern Till Plain                    | 114,908            | 100.0                | 1.6             |



The marsh rice rat is semiaquatic, inhabiting marshes, swamps, and shores of lakes and ponds. Because of the loss of many natural wetlands, rice rats make use of available areas of standing water with emergent, herbaceous vegetation found in areas such as roadside ditches, farm ponds, and railroad rights-of-way in Illinois. Despite its extensive range in the U.S., the rice rat is uncommon in Illinois (it is a state-threatened species) and limited to the southern part of the state.

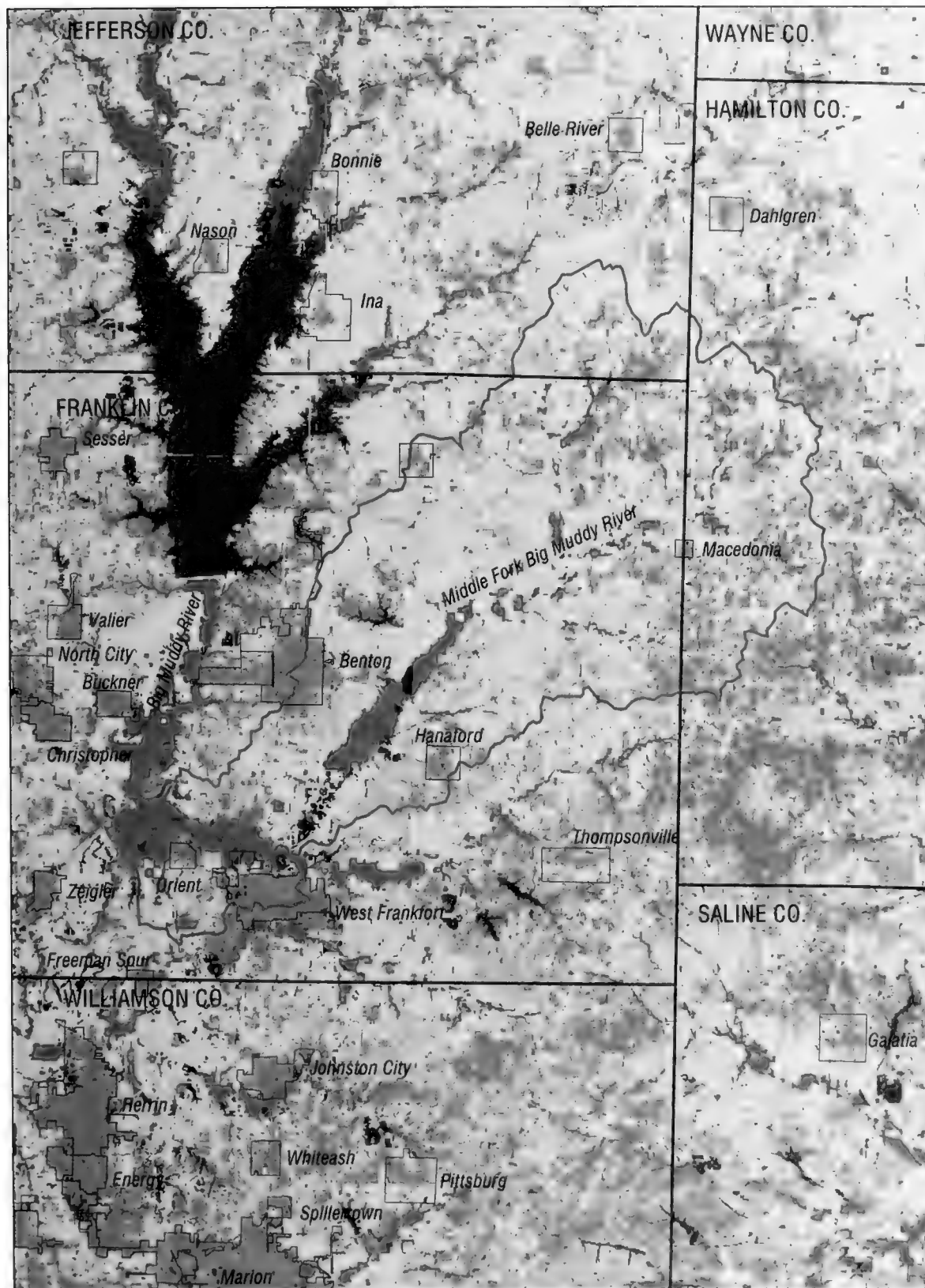


## Middle Fork Big Muddy



4 Miles





# Middle Fork Big Muddy

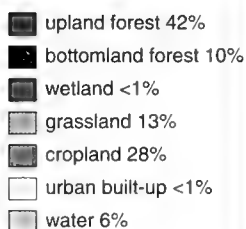
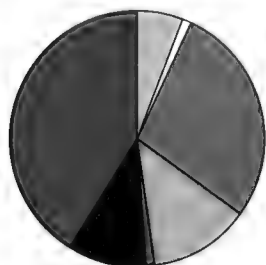


4 Miles

**Size:**  
466,755 acres  
729 square miles

**Location:**  
Southwestern  
Illinois; Alexander,  
Jackson, Johnson,  
Randolph, Union,  
and Williamson  
counties.

**Landcover at a Glance**



## ILLINOIS OZARKS

*The Illinois Ozarks RRA is one of the richest, most biologically diverse areas of the state. Many species found here are rare and limited in distribution to this area of the state. This RRA encompasses Mississippi River bottomlands, Ozark plateau, and unglaciated hill country. Originally much of the land was forested and considerable forest remains. The Illinois Ozarks RRA shares a common boundary with Cache River RRA; the large, contiguous forests along the boundary are split into the two RRAs.*



**LANDCOVER** ♦ The predominant landcover in this RRA is woods (42% upland and 10% bottomland woods). Twenty-eight percent of the site is cropland. The Illinois Ozarks is one of the few nonurban sites where cropland is not the predominant landcover. The second highest percentage of upland woods and the fourth highest percentage of bottomland woods occurs in this RRA. It has the fifth highest acreage of nonforested wetlands.

**NATURAL AREAS** ♦ There are 59 Natural Areas covering a total of 17,010 acres, the fifth highest acreage among the RRAs. These sites include caves, geological features, aquatic systems, wetlands, woods, and prairies. La Rue-Pine Hills is the largest Natural Area (4,179 acres).

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Six BSS designations occur in this RRA for a total of 33 miles. These include four streams and two stretches of the Mississippi River. The streams are clear with sand, gravel, and rock substrates.

**HERITAGE SITES** ♦ A large number of Heritage points (227) occur here. Thirteen community types, 38 plant species, and 30 animal species are located in this RRA. All eight community categories are represented. There are 17 occurrences of large forest tracts and three rookeries.

**STATE AND FEDERAL LANDS** ♦ Twenty-one percent (99,934 acres) of the RRA is in public ownership. State land consists of one state park, one conservation area, one state forest, and one fish and wildlife area. Most of the acreage in public ownership is in Shawnee National Forest.

**NATURE PRESERVES** ♦ Seven Nature Preserves are located in the RRA. Significant features are mature forests, cliffs, bedrock outcrops, swamps, and barrens.

**NATURAL DIVISIONS** ♦ This RRA includes six natural divisions. The Lower Mississippi River Bottomlands, Shawnee Hills, and Ozark Natural Divisions each comprise about one-third of the RRA.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 466,755 |
| Natural Areas                           |         |
| Acreage                                 | 17,010  |
| Number                                  | 59      |
| Biologically Significant Stream Mileage | 33.1    |

|                             |        |
|-----------------------------|--------|
| Natural Heritage Sites      | 227    |
| State Land                  |        |
| State Parks                 | 1      |
| State Conservation Areas    | 1      |
| State Forests               | 1      |
| State Fish & Wildlife Areas | 1      |
| Acreage                     | 18,668 |
| Percentage of RRA           | 4.0    |
| Federal Land                |        |
| Acreage                     | 81,266 |
| Percentage of RRA           | 17.4   |

| LANDCOVER            | <u>Acres</u> | <u>% of RRA</u> |
|----------------------|--------------|-----------------|
| Upland forest        | 195,997.50   | 41.99           |
| Bottomland Forest    | 44,813.91    | 9.60            |
| Wetland- nonforested | 4,284.72     | 0.92            |
| Grassland            | 60,963.49    | 13.06           |
| Cropland             | 128,720.40   | 27.58           |
| Urban-Built Up       | 3,885.91     | 0.83            |
| Water                | 28,076.46    | 6.02            |
| TOTAL                | 466,742.39   | 100.00          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|   | <u>Acres</u> |
|---|--------------|
| Atwood Ridge                              | 1,000        |
| Backbone South Geological Area            | 5            |
| Bake Oven—Backbone North Geological Area  | 7            |
| Bald Knob Geological Area                 | 31           |
| Bald Knob Sedge Site                      | *            |
| Berryville Shale Glade                    | 11           |
| Black Cave                                | 13           |
| Black Powder Hollow Geological Area       | 4            |
| Brown Barrens                             | 11           |
| Brown's Bar                               | 687          |
| Bumgard Island                            | 1,894        |
| Burnham Island                            | 1,157        |
| Castle Rock                               | 2            |
| Cave Spring Cave                          | 243          |
| Chester South Geological Area             | 5            |
| Clear Creek                               | 124          |
| Clear Creek Swamp                         | 102          |
| Clear Springs Geological Area             | 13           |
| Coles Mill Geological Area                | 2            |
| Crab Orchard Bead Grass Site              | *            |
| Crab Orchard Eagle Sites                  | *            |
| Crab Orchard Sedge Site                   | *            |
| Crain Geological Area                     | 39           |
| Devil's Den                               | 90           |
| Devil's Island                            | -            |
| Devil's Kitchen Dam Research Natural Area | 195          |
| Dongola Hollow Geological Area            | 5            |
| Dutch Creek Chert Woodlands               |              |
| Fern Rocks                                | 179          |
| Fountain Bluff Geological Area            | 2            |
| Fountain Bluff North                      | 15           |
| Fountain Bluff Site                       | -            |

**L**a Rue-Pine Hills is one of the richest and most biologically diverse areas in Illinois. The biological richness of this 2x5-mile strip of land has much to do with its unique topography of limestone bluffs that tower above a springfed swamp. Swamp, spring, cliff, forest, glade, cave, and hill prairie communities provide diverse habitat for a correspondingly diverse flora and fauna. Eastern, western, northern, and southern species are present in this area. Several rare species are found at La Rue-Pine Hills, including the golden mouse, eastern woodrat, Indiana bat, green water snake, blue-head shiner, banded pygmy sunfish, spotted sunfish, and bantam sunfish.

**A**pproximately 20 species of snakes are known from La Rue-Pine Hills. In the spring and fall, snakes migrate from their winter hibernation sites in the rocky bluffs. Many cross the road which separates the bluffs from the swamp, prompting closure of the road twice a year. Venomous copperheads, timber rattlesnakes, and cottonmouths, as well as several non-poisonous snakes, such as king and rat snakes, live in La Rue-Pine Hills.

ILLINOIS NATURAL AREAS INVENTORY SITES (*continued*)

|   | <u>Acres</u> |
|---|--------------|
| Gale Geological Area                    | 1            |
| Gale North Geological Area              | 1            |
| Giant City State Park Geological Area   | 15           |
| Guthrie Cave                            | 109          |
| La Rue-Pine Hills Research Natural Area | 4,179        |
| Little Grand Canyon -Cedar Creek        | 988          |
| Lovets Pond                             | 156          |
| Lyerle Site                             | *            |
| Marys River Woods                       | 52           |
| McClure Shale Glade                     | 10           |
| Miller Creek                            | 44           |
| Mississippi River -Grand Tower          | 366          |
| Mississippi River -Mudds Landing        | 2,925        |
| Ozark Hill Prairies                     | 464          |
| Ozark Hills                             | 215          |
| Pine Hills Annex                        | 6            |
| Piney Creek Ravine                      | 200          |
| Reeds Creek Canyon East                 | 39           |
| Reeds Creek Canyon North                | 131          |
| Reily Lake Area                         | *            |
| Rich's Cave System                      | 89           |
| Rockcastle Creek Area                   | 76           |
| Swayne Hollow                           | 206          |
| Thebes Area                             | 886          |
| Toothless Cave                          | 13           |
| Union County State Conservation Area    | *            |
| Weaver's Woods                          | 1            |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|   | <u>Miles</u> |
|---|--------------|
| Dutch Creek                                 | 10.6         |
| Miller Creek                                | 5.8          |
| Mississippi River, rm 114-119, Randolph Co. | 3.7          |
| Mississippi River, rm 78-83, Jackson Co.    | 4.1          |
| Orchard Creek                               | 3.1          |
| Sammons Creek                               | 5.8          |

## NATURAL HERITAGE CATEGORIES

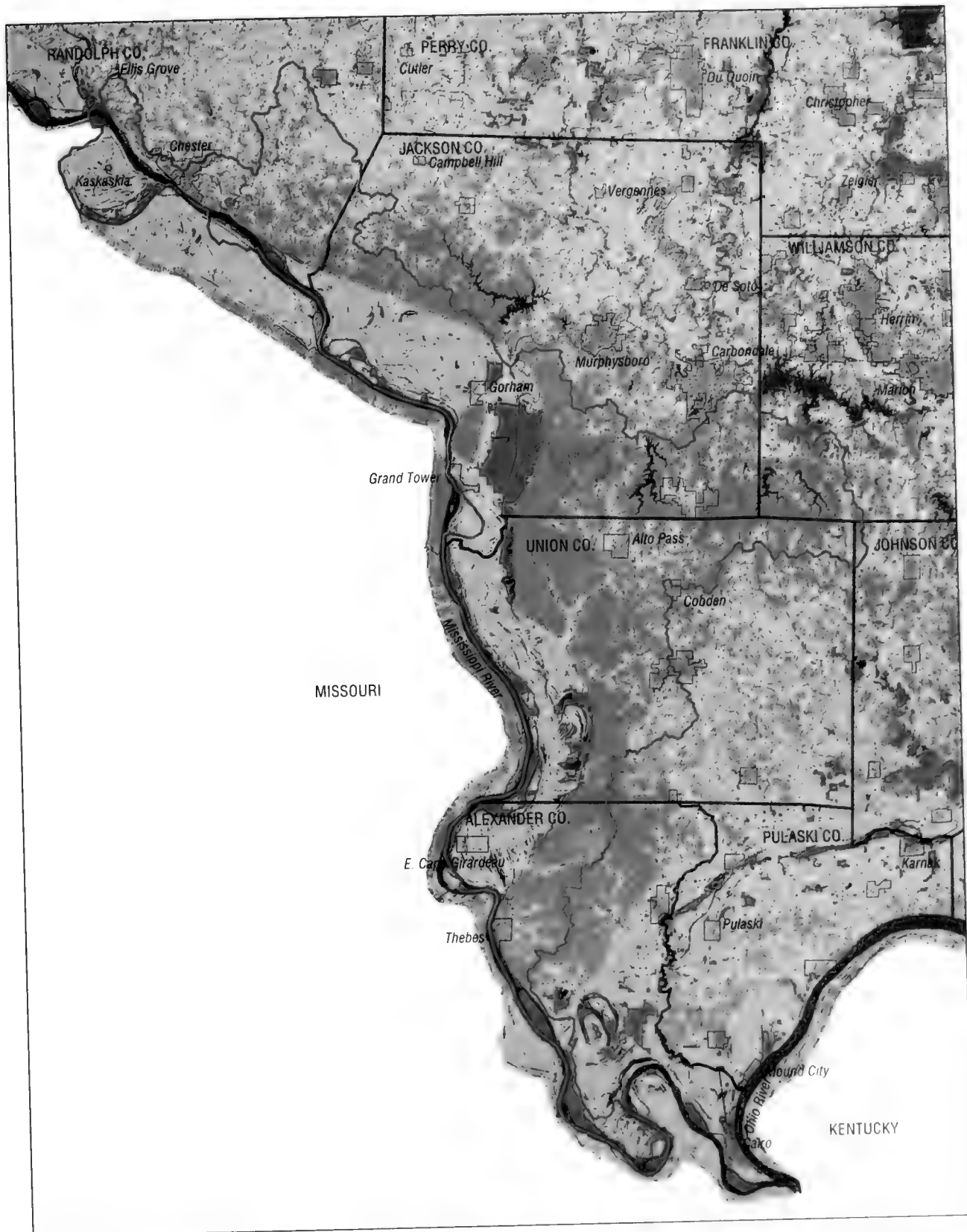
|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Floodplain Forest                 | 1                  | 1                    |
| Lake                              | 2                  | 1                    |
| Wetland                           | 2                  | 2                    |
| Cave                              | 11                 | 2                    |
| Forest                            | 1                  | 1                    |
| Savanna                           | 2                  | 2                    |
| Prairie                           | 2                  | 1                    |
| Primary                           | 5                  | 3                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 37                 | 12                   |
| Fish                              | 14                 | 7                    |
| Mammal                            | 33                 | 7                    |
| Reptile                           | 14                 | 3                    |
| Crustacean                        | 5                  | 1                    |



|   |               |              |                 |
|---|---------------|--------------|-----------------|
| Threatened and Endangered Plants              |               |              |                 |
| Plant-Dicot                                   | 27            | 17           |                 |
| Plant-Gymnosperm                              | 2             | 1            |                 |
| Plant-Monocot                                 | 26            | 17           |                 |
| Plant-Fern/Fern Ally                          | 7             | 3            |                 |
| Geological Feature                            |               |              |                 |
| Geological Feature                            | 16            | 1            |                 |
| Other   |               |              |                 |
| Forest Block >500 Acres                       | 17            | 1            |                 |
| Rookery                                       | 3             | 1            |                 |
| STATE AND FEDERAL LAND                        |               |              |                 |
| State Parks                                   |               | <u>Acres</u> |                 |
| Giant City                                    |               | 4,580        |                 |
| State Conservation Areas                      |               |              |                 |
| Union County                                  |               | 6,504        |                 |
| State Forests                                 |               |              |                 |
| Trail of Tears                                |               | 5,232        |                 |
| State Fish and Wildlife Areas                 |               |              |                 |
| Turkey Bluffs                                 |               | 2,352        |                 |
| Federal Land                                  |               |              |                 |
| Shawnee National Forest Proclamation Boundary |               | 204,416      |                 |
| Shawnee National Forest Ownership             |               | 81,266       |                 |
| ILLINOIS NATURE PRESERVES                     |               | <u>Acres</u> |                 |
| Berryville Shale Glade                        |               | 34           |                 |
| Brown Barrens                                 |               | 34           |                 |
| Fern Rocks                                    |               | 179          |                 |
| La Rue Swamp                                  |               | 136          |                 |
| Mcclure Shale Glade                           |               | 53           |                 |
| Ozark Hills                                   |               | 215          |                 |
| Piney Creek Ravine                            |               | 140          |                 |
| NATURAL DIVISIONS                             | <u>Acres</u>  | <u>% of</u>  | <u>% of</u>     |
|   | <u>in RRA</u> | <u>RRA</u>   | <u>Division</u> |
| Lower Mississippi R Bottomlands               | 147,141       | 31.8         | 40.9            |
| Shawnee Hills                                 | 144,501       | 31.2         | 15.9            |
| Ozarks  | 141,298       | 30.5         | 34.8            |
| Major Water Bodies                            | 15,588        | 3.4          | 1.3             |
| Coastal Plain                                 | 11,911        | 2.6          | 2.6             |
| Southern Till Plain                           | 2,193         | 0.5          | 0.0             |

One of the few remaining strongholds of the eastern woodrat in Illinois is La Rue-Pine Hills. This animal was at one time distributed across southern Illinois from the Ohio River to the Mississippi. The eastern woodrat is a true pack rat, collecting and storing nuts, acorns, pods, twigs, leaves, and other small items in their nests. The nests are added to by each successive owner.





## Illinois Ozarks



8 Miles



**Size:**

477,112 acres

745 square miles

**Location:**

Southeastern

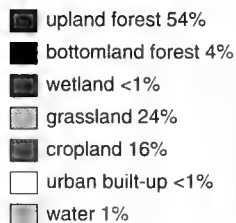
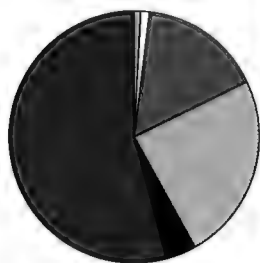
Illinois; Gallatin,

Massac, Hardin,

Johnson, Pope,

Saline, and

Williamson counties.

**Landcover at a Glance**

## SHAWNEE HILLS

*The Shawnee Hills RRA is a scenic wooded area in an unglaciated part of the state. An escarpment of sandstone runs east to west in this area. Bluffs, rugged hills, deep ravines, and clear streams support distinctive flora and fauna. This area was originally forested, and considerable amounts of forested land remain.*

**LANDCOVER** ♦ Woodlands cover 58% of this RRA (54% upland woods and 4% bottomland woods). It ranks first in total acreage and percentage of upland woods. Grassland and cropland account for 24% and 16% of the area, respectively. This is one of the few nonurban RRAs where cropland is not the predominant landcover. Moderate amounts of bottomland woods and low amounts of nonforested wetlands are found at this site.

**NATURAL AREAS** ♦ The Shawnee Hills RRA has the greatest number of Natural Areas (83) among the RRAs. Principal natural features include bluffs, springs, caves, aquatic systems, barrens, hill prairies, woods, hollows, and geological features.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ The highest total BSS mileage occurs in this RRA. Seventeen streams have been given BSS designation. Most are small, clear streams which run over sand, gravel, and rock substrates.

**HERITAGE SITES** ♦ The Shawnee Hills RRA ranks third in number of Heritage occurrences with 255 sites. Ten community types, 49 plants species, and 25 animal species are located in the RRA. There are four large forest tracts and two rookeries.

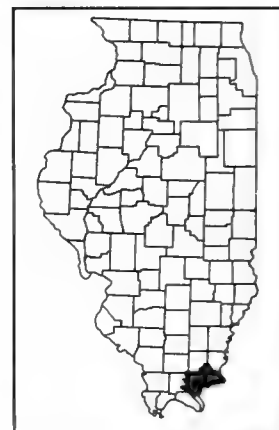
**STATE AND FEDERAL LAND** ♦ The Shawnee Hills RRA has the highest percentage of state and federal ownership of the RRAs. The total acreage of state and federal land is 138,877 acres, or 29% of the RRA, most of which is in the Shawnee National Forest. State land consists of two state parks and one conservation area.

**NATURE PRESERVES** ♦ Lusk Creek Canyon, the only Nature Preserve in this site, is a large canyon with high sandstone cliffs and a high quality stream.

**NATURAL DIVISIONS** ♦ The Shawnee Hills Natural Division is the predominant division in this RRA (82% of the RRA).

**SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS**

|   |         |
|---|---------|
| Total Acreage                           | 477,112 |
| Natural Areas                           |         |
| Acreage                                 | 8,638   |
| Number                                  | 83      |
| Biologically Significant Stream Mileage | 125.9   |
| Natural Heritage Sites                  | 255     |
| State Land                              |         |
| State Parks                             | 2       |
| State Conservation Areas                | 1       |
| State Forests                           | 0       |
| State Fish & Wildlife Areas             | 0       |
| Acreage                                 | 2,060   |



|  |                 |                 |
|--|-----------------|-----------------|
| Percentage of RRA                      |                 | 0.4             |
| Federal Land                           |                 |                 |
| Acreage                                |                 | 136,817         |
| Percentage of RRA                      |                 | 28.7            |
| LANDCOVER                              | <u>Acres</u>    | <u>% of RRA</u> |
| Upland forest                          | 256,155.00      | 53.69           |
| Bottomland forest                      | 18,882.62       | 3.96            |
| Wetland- nonforested                   | 1,833.27        | 0.38            |
| Grassland                              | 114,612.20      | 24.02           |
| Cropland                               | 76,954.51       | 16.13           |
| Urban/Built-up                         | 2,415.12        | 0.51            |
| Water                                  | <u>6,261.69</u> | <u>1.31</u>     |
| TOTAL                                  | 477,114.41      | 100.00          |
| ILLINOIS NATURAL AREAS INVENTORY SITES | <u>Acres</u>    |                 |
| Abbot Geological Area                  | 9               |                 |
| Barker Bluff                           | 125             |                 |
| Battery Rock                           | *               |                 |
| Bell Smith Springs                     | 546             |                 |
| Big Creek                              | 395             |                 |
| Big Grand Pierre Creek Site            | *               |                 |
| Big Sink Limestone Glade               | 27              |                 |
| Brown's Hole Cave                      | 7               |                 |
| Brownfield Bluff                       | 4               |                 |
| Camp Ondessonk                         | 459             |                 |
| Cane Creek Area                        | 4               |                 |
| Caney Branch Glade                     | 47              |                 |
| Cave Hill                              | 305             |                 |
| Cave Spring Cave System                | 1,161           |                 |
| Chimaphila Site                        | 1               |                 |
| Collier Limestone Glade                | 12              |                 |
| Copperous Branch Hill Prairie          | 23              |                 |
| Crow Knob Sandstone Barrens            | *               |                 |
| Double Branch Hole                     | 5               |                 |
| Eagle Creek-robinette Creek            | 50              |                 |
| East Fork Oxalis Site                  | 1               |                 |
| Flick Hill                             | 17              |                 |
| Frailey's Landing Geological Area      | 7               |                 |
| Frieze Cave                            | 26              |                 |
| Garden of the Gods                     | 113             |                 |
| Gibbons Creek Barrens                  | 21              |                 |
| Grantsburg Swamp                       | 161             |                 |
| Griffith Cave                          | 1               |                 |
| Gyp Williams Hollow                    | 327             |                 |
| Haney Creek                            | 134             |                 |
| Hayes Creek Sites                      | 6               |                 |
| Herman Hill Site                       | 303             |                 |
| Hicks Dome Plug Geological Area        | 11              |                 |
| Hicks Geological Area                  | 10              |                 |
| Homberg Spring                         | 1               |                 |
| Horseshoe Geological Area              | 3               |                 |
| Hosick Creek                           | 42              |                 |
| Jackson Hole Barrens                   | *               |                 |
| Jackson Hollow                         | 268             |                 |

**S**andstone canyons are one of the outstanding features of the Shawnee Hills. Luxuriant vegetation grows in the cool, humid ravines, which are shaded by dense forest canopy and high canyon walls. Sphagnum moss, ferns, and club mosses grow on the moist, sandstone cliff faces. Lusk Creek Canyon is a large gorge where a high-quality stream flows between vertical, sandstone cliffs that are 100 feet high in places. Several rare and unusual plants are found here, including 13 species of wild orchids.

**F**rench's shooting star is a wild-flower restricted to a 10-mile band across southern Illinois called the Shawneetown Ridge. The plant grows under the dripline of sandstone ledges, where the sandy soil stays moist during the growing season.

|  |              |
|--|--------------|
| Kaskaskia Woods                                | 24           |
| Keeling Hill                                   | 60           |
| Lamb Site                                      | *            |
| Layoff Cave                                    | 260          |
| Leisure City Glade                             | 9            |
| Little Grand Pierre South Glade                | 4            |
| Little Saline River                            | 65           |
| Lusk Creek                                     | 446          |
| Lusk Creek Canyon                              | 346          |
| Lusk Creek North                               | 1            |
| Manson Ford                                    | *            |
| Martha's Woods Site                            | 6            |
| Melcher Hill Limestone Glade                   | 8            |
| Millstone Bluff                                | 138          |
| Old Stone Face -Dennison Hollow                | 411          |
| Old Zion Cemetery Geological Area              | 6            |
| Orr's Landing Geological Area                  | 2            |
| Panther Hollow                                 | 253          |
| Peters Creek                                   | 61           |
| Pine Hollow                                    | 417          |
| Pleasant Valley Hill Prairie                   | 7            |
| Pounds Hollow                                  | 273          |
| Quarrel Creek Area                             | *            |
| Reddick Hollow                                 | 5            |
| Reddick Hollow Amphipod Site                   | *            |
| Reid's Chapel Sandstone Glades                 | *            |
| Robnett Creek Barrens                          | *            |
| Rock Creek                                     | 123          |
| Rocky Branch Battle Ford Creek                 | *            |
| Russell Cemetery Glade                         | 17           |
| Saline Landing                                 | 5            |
| Saline River Geological Area                   | 1            |
| Sand Cave                                      | 39           |
| Simmons Creek -Hurricane Hollow Area           | 142          |
| Simpson Township Prairie                       | 72           |
| Soward Limestone Glade                         | 6            |
| Split Rock Hollow                              | 3            |
| Sulphur Springs Area                           | <1           |
| Teal Pond                                      | <1           |
| Trig Tower Sandstone Glades                    | 206          |
| Wamble Mountain                                | 23           |
| Werner Tract                                   | 66           |
| Whoopie Cat Mountain                           | 272          |
| Wise Ridge                                     | 229          |
| * = point location, map not available          |              |
| <b>BIOLOGICALLY SIGNIFICANT STREAMS</b>        |              |
|  | <u>Miles</u> |
| Big Creek drainage                             | 31.6         |
| Big Grand Pierre Creek, Rte 146 to Pinhook Cr. | 8.0          |
| Burden Creek                                   | 2.1          |
| Clifty Creek                                   | 3.7          |
| Copperous Branch                               | 2.0          |
| Eagle Creek                                    | 10.7         |
| Honey Creek                                    | 10.0         |

|   |      |
|---|------|
| Hosick Creek                                    | 3.5  |
| Little Saline River, Allen Branch to South Fork | 8.0  |
| Lusk Creek, Flick Branch to Little Lusk Creek   | 13.3 |
| Ohio River, Elizabethtown to Cave-in-Rock       | 7.5  |
| Peters Creek                                    | 8.3  |
| Robinette Creek, Pounds Lake to Eagle Creek     | 3.7  |
| Rock Creek                                      | 10.2 |
| Three Springs Hollow                            | 0.8  |
| unnamed trib, Cedar Creek                       | 1.5  |
| unnamed trib, Wallace Branch, Cave Spring Cave  | 1.0  |

## NATURAL HERITAGE CATEGORIES

| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Cave                              | 8                  | 2                    |
| Forest                            | 9                  | 3                    |
| Savanna                           | 4                  | 2                    |
| Primary                           | 25                 | 3                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 16                 | 9                    |
| Fish                              | 2                  | 1                    |
| Mammal                            | 24                 | 7                    |
| Reptile                           | 9                  | 1                    |
| Crustacean                        | 23                 | 6                    |
| Insect                            | 2                  | 1                    |
| Threatened and Endangered Plants  |                    |                      |
| Lichen                            | 4                  | 1                    |
| Plant-Dicot                       | 71                 | 28                   |
| Plant-Monocot                     | 33                 | 17                   |
| Plant-Fern/Fern Ally              | 9                  | 3                    |
| Geological Feature                |                    |                      |
| Geological Feature                | 10                 | 1                    |
| Other                             |                    |                      |
| Forest Block >500 Acres           | 4                  | 1                    |
| Rookery                           | 2                  | 1                    |

## STATE AND FEDERAL LAND

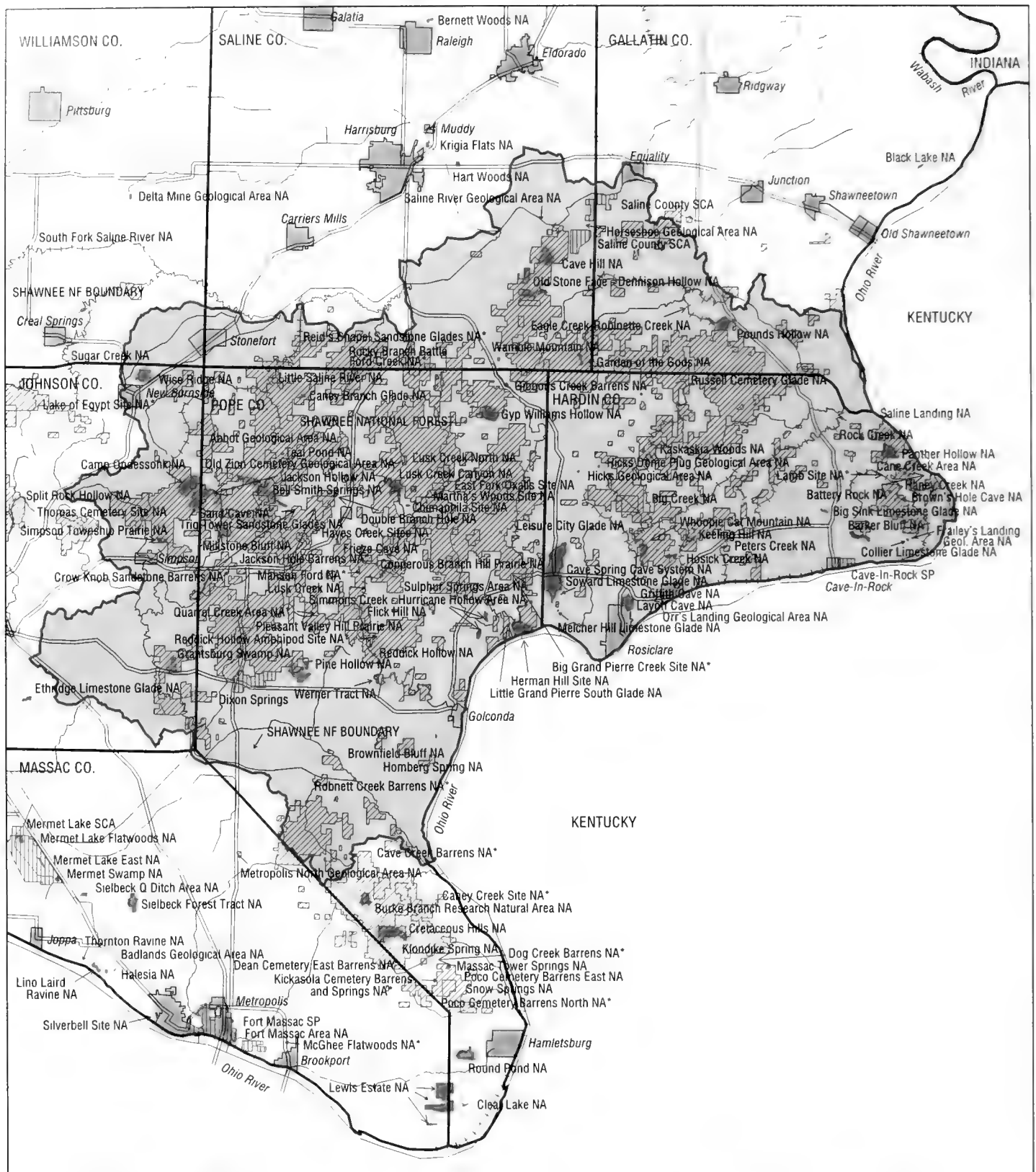
| State Parks                                   | <u>Acres</u> |
|---|--------------|
| Cave-In-Rock                                  | 204          |
| Dixon Springs                                 | 799          |
| State Conservation Areas                      |              |
| Saline County                                 | 1,057        |
| State Forests                                 | 0            |
| State Fish and Wildlife Areas                 | 0            |
| Federal Land                                  |              |
| Shawnee National Forest Proclamation Boundary | 418,276      |
| Shawnee National Forest Ownership             | 136,817      |

## ILLINOIS NATURE PRESERVES

|                   |     |
|-------------------|-----|
| Lusk Creek Canyon | 129 |
|-------------------|-----|

| NATURAL DIVISIONS   | <u>Acres</u><br><u>in RRA</u> | <u>% of</u><br><u>RRA</u> | <u>% of</u><br><u>Division</u> |
|---------------------|-------------------------------|---------------------------|--------------------------------|
| Shawnee Hills       | 390,000                       | 82.0                      | 43.1                           |
| Wabash Border       | 45,371                        | 9.5                       | 2.5                            |
| Coastal Plain       | 39,415                        | 8.3                       | 8.5                            |
| Major Water Bodies  | 862                           | 0.2                       | 0.0                            |
| Southern Till Plain | 76                            | 0.0                       | 0.0                            |

**W**ith more than one-quarter million acres, the Shawnee National Forest is the largest public land holding in Illinois. Located in the southern part of the state, it is bordered on the east and south by the Ohio River and on the west by the Mississippi River. The Forest Service of the U.S. Department of Agriculture manages Shawnee for multiple uses, including camping, hiking, fishing, hunting, timber harvest, mining, and grazing. Within the boundaries of the Shawnee are many high-quality natural areas and rich assemblages of species unique to Illinois.



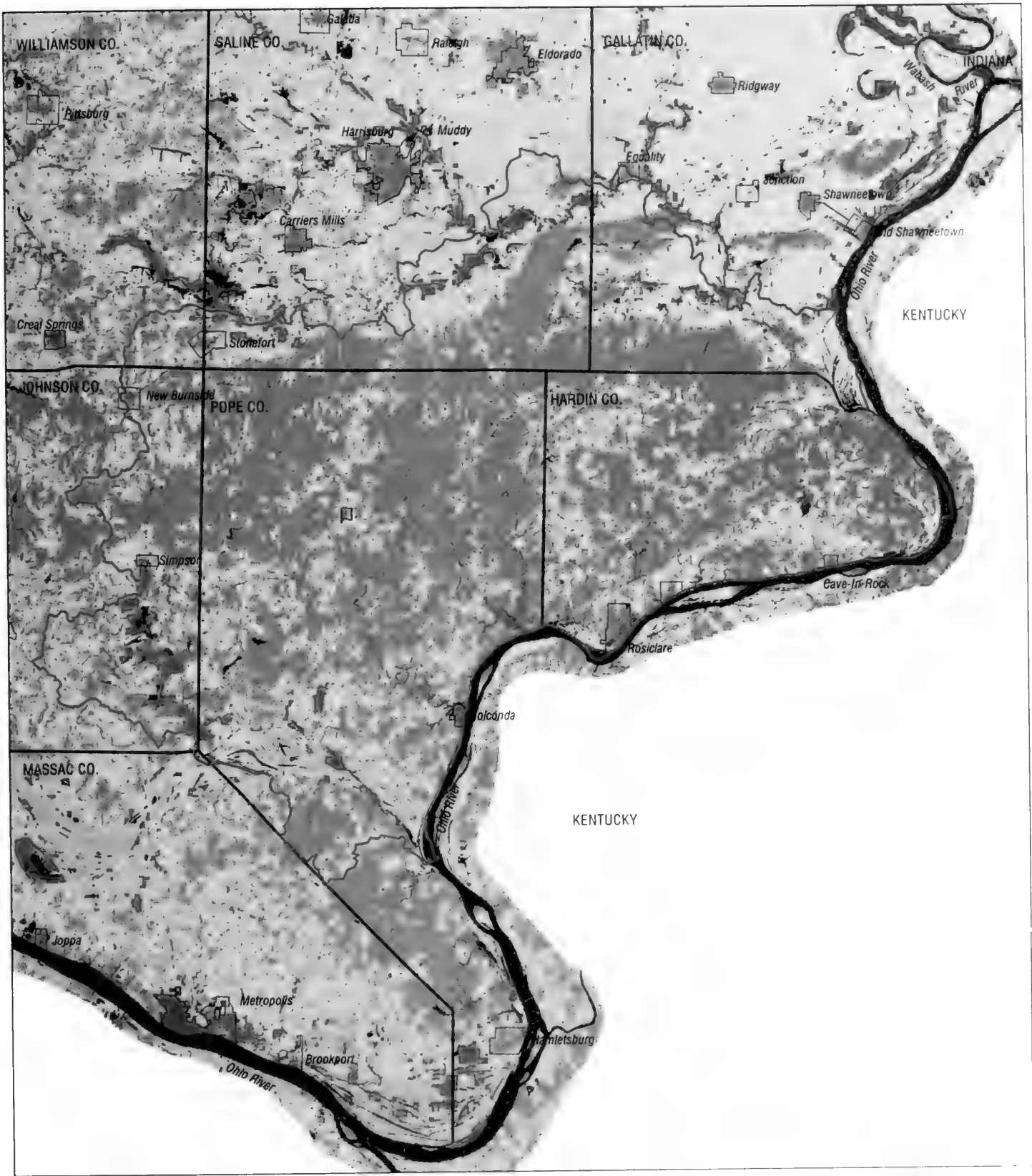
## Shawnee Hills



7 Miles







# Shawnee Hills

- |   |                         |   |                |
|---|-------------------------|---|----------------|
|  | Upland Forest           |  | Cropland       |
|  | Bottomland Forest/Swamp |  | Water          |
|  | Nonforested Wetland     |  | Urban/Built-up |
|  | Grassland               |   |                |

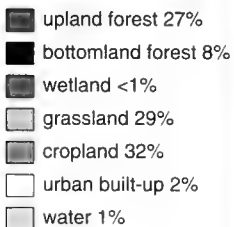
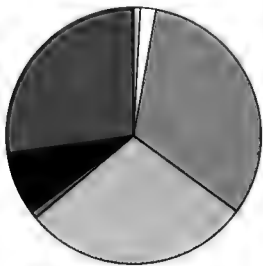
7 Miles



**Size:**  
443,616 acres  
693 square miles

**Location:**  
Southern Illinois  
along the Cache  
River; Alexander,  
Johnson, Massac,  
Pulaski, and Union  
counties.

Landcover at a Glance



## CACHE RIVER

*The Cache River RRA is located at the southern tip of Illinois. The upper reach flows through the hills of the Ozark plateau; the lower Cache flows through flatter coastal plain where drainage is slow and wetlands become more abundant. Unique features include bald cypress-tupelo gum swamps and several species associated with the southern U.S. The Cache River RRA shares a common border with the Illinois Ozarks RRA; the large, contiguous forests that occur along the boundary are split into the two RRAs.*



**LANDCOVER** ♦ The landcover is fairly evenly divided among three categories—cropland (32%), grassland (29%), and upland woods (27%). In terms of percentage of the site, the Cache River RRA ranks fourth for grassland, fifth for upland woods, and sixth for bottomland woods. This site has the eighth highest acreage of nonforested wetlands.

**NATURAL AREAS** ♦ Sixty-three Natural Areas totalling 18,444 acres are located in this RRA. This RRA ranks third in number of Natural Areas and fourth in acreage of Natural Areas. Significant features include caves, springs, barrens, ponds, lakes, swamps, woods, and geological features. The largest Natural Areas are Heron Pond-Little Black Slough (6,613 acres) and the Lower Cache River Swamp (6,561 acres).

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Six stream segments totalling 53 miles have been designated as BSS. Horseshoe Lake and Lake Creek support a number of species that are extremely rare in Illinois.

**HERITAGE SITES** ♦ There are 298 Heritage occurrences, the second highest number among the RRAs. There are 17 community types, 41 plant species, and 43 animal species represented. Seven large forest tracts and two rookeries are located here.

**STATE AND FEDERAL LAND** ♦ The total acreage of public land in this RRA is 65,665 acres, or 15% of the land area. There are three state parks and two state conservation areas. The majority of public land is federally owned and consists of Cypress Creek National Wildlife Refuge and Shawnee National Forest.

**NATURE PRESERVES** ♦ Eight Nature Preserves are located in the Cache River RRA. Principal natural features include glades, upland forests, floodplain forests, bluffs, ravines, ponds, and cypress-tupelo swamps.

**NATURAL DIVISIONS** ♦ The Natural Divisions of the Cache River RRA are the Coastal Plain (58%), Shawnee Hills (35%), and Ozarks (7%).

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |         |
|---|---------|
| Total Acreage                           | 443,616 |
| Natural Areas                           |         |
| Acreage                                 | 18,444  |
| Number                                  | 63      |
| Biologically Significant Stream Mileage | 52.8    |
| Natural Heritage Sites                  | 298     |

|                             |        |
|-----------------------------|--------|
| State Land                  |        |
| State Parks                 | 3      |
| State Conservation Areas    | 2      |
| State Forests               | 0      |
| State Fish & Wildlife Areas | 0      |
| Acreage                     | 11,924 |
| Percentage of RRA           | 2.7    |
| Federal Land                |        |
| Acreage                     | 53,741 |
| Percentage of RRA           | 12.1   |

| LANDCOVER           | <u>Acres</u>    | <u>% of RRA</u> |
|---------------------|-----------------|-----------------|
| Upland forest       | 117,758.90      | 26.55           |
| Bottomland forest   | 35,327.44       | 7.96            |
| Wetland-nonforested | 2,508.85        | 0.57            |
| Grassland           | 130,500.20      | 29.42           |
| Cropland            | 143,676.50      | 32.39           |
| Urban/Built-up      | 7,187.96        | 1.62            |
| Water               | <u>6,646.45</u> | <u>1.50</u>     |
| TOTAL               | 443,606.30      | 100.01          |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|  | <u>Acres</u> |
|--|--------------|
| Archimedes Cave                        | 28           |
| Badlands Geological Area               | 4            |
| Big Brushy Ridge                       | 145          |
| Black Powder Hollow Geological Area    | <1           |
| Britten Spring                         | 5            |
| Cache Valley Geological Area           | 5            |
| Cave Creek Barrens                     | 8            |
| Cedar Bluff                            | 330          |
| Cedar Bluff Cave                       | 5            |
| Chestnut Hills                         | 674          |
| Cooper Creek Hollow Mine               | *            |
| Cypress Pond                           | 499          |
| Deer Pond                              | 154          |
| Diswood Site                           | *            |
| Draper's Bluff                         | 587          |
| Dusky Salamander Sites                 | *            |
| Ethridge Limestone Glade               | 56           |
| Firestone Creek Cave                   | 29           |
| Fort Massac Area                       | 21           |
| Goreville Interchange Geological Area  | 13           |
| Halesia                                | 36           |
| Horseshoe Forest                       | 231          |
| Horseshoe Lake                         | 351          |
| Horseshoe Lake Nuttall's Oak Site      | <1           |
| Horseshoe Lake South                   | 3            |
| Horseshoe Lake State Conservation Area | .            |
| Indian Point                           | 108          |
| Jug Spring                             | .            |
| Lake Creek                             | 59           |
| Lick Creek Geological Area             | 14           |
| Lino Laird Ravine                      | 72           |
| Little Black Slough--Heron Pond Area   | 6,613        |

**A**t the extreme southern tip of Illinois, the land flattens and is poorly drained. Southern flora is present in this area, the northernmost extent of the coastal plain that stretches to the Gulf of Mexico. Swamps, dominated by bald cypress (some of the largest and oldest trees in Illinois) and tupelo, are reminiscent of Louisiana bayous. The Heron Pond-Little Black Slough Nature Preserve is a significant natural area with high-quality swamp and flood-plain forest as well as upland forest and glade communities.

**T**he green treefrog is one of the most colorful frogs in North America. Its bright green-to-olive coloration protects it from predators as it perches on vegetation in swamps, floodplain sloughs, and marshes. In Illinois, the green treefrog is limited to the extreme southern tip of the state.

ILLINOIS NATURAL AREAS INVENTORY SITES (*continued*)

|                                   | <u>Acres</u> |
|-----------------------------------|--------------|
| Lower Cache River Swamp           | 6,561        |
| Magazine Mine Hollow              | *            |
| Mason Cave                        | 12           |
| Mermet Lake East                  | 50           |
| Mermet Lake Flatwoods             | 64           |
| Mermet Swamp                      | 47           |
| Mounds West Geological Area       | 9            |
| Ohio River-Hillerman              | 108          |
| Olmsted Geological Area           | 6            |
| Open Pond                         | 37           |
| Opossum Trot Trail                | 49           |
| Post Creek Cutoff Geological Area | 4            |
| Post Creek Cutoff Site            | 57           |
| Provo Cemetery                    | 59           |
| Rich's Cave System                | 17           |
| Roaring Spring Area               | 59           |
| Round Bluff                       | 59           |
| Scout Cave                        | 232          |
| Sielbeck Forest Tract             | 206          |
| Sielbeck Q Ditch Area             | 40           |
| Silverbell Site                   | 1            |
| Teal's Cave                       | 4            |
| Thalia Site                       | 1            |
| Thebes Area                       | 20           |
| Thornton Ravine                   | 1            |
| Unity Area                        | 29           |
| Weaver's Woods                    | 32           |
| West Vienna Woods                 | 25           |
| White Hill Cave                   | 4            |
| White Hill Quarry                 | *            |
| Wolf Creek Area                   | 599          |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|                                  | <u>Miles</u> |
|----------------------------------|--------------|
| Cache River, Big Creek to Karnak | 8.1          |
| Horseshoe Lake                   | 22.0         |
| Lake Creek                       | 3.7          |
| Limekiln Slough                  | 5.5          |
| Ohio River, L&D 52 to Metropolis | 2.4          |
| Ohio River, L&D 53 to Mound City | 10.9         |

## NATURAL HERITAGE CATEGORIES



|                                   | <u>Occurrences</u> | <u>Types/Species</u> |
|-----------------------------------|--------------------|----------------------|
| Communities                       |                    |                      |
| Floodplain Forest                 | 10                 | 3                    |
| Lake                              | 3                  | 1                    |
| Wetland                           | 11                 | 2                    |
| Cave                              | 7                  | 2                    |
| Forest                            | 10                 | 5                    |
| Prairie                           | 1                  | 1                    |
| Primary                           | 7                  | 3                    |
| Threatened and Endangered Animals |                    |                      |
| Amphibian                         | 19                 | 2                    |
| Bird                              | 37                 | 15                   |
| Fish                              | 7                  | 5                    |





|   |               |              |
|---|---------------|--------------|
| Mammal  | 51            | 8            |
| Reptile                                       | 8             | 3            |
| Crustacean                                    | 9             | 4            |
| Mollusk                                       | 10            | 6            |
| Threatened and Endangered Plants              |               |              |
| Lichen  | 1             | 1            |
| Plant-Dicot                                   | 66            | 24           |
| Plant-Monocot                                 | 20            | 14           |
| Plant-Fern/Fern Ally                          | 2             | 2            |
| Geological Feature                            |               |              |
| Geological Feature                            | 10            | 1            |
| Other   |               |              |
| Forest Block >500 Acres                       | 7             | 1            |
| Rookery                                       | 2             | 1            |
| STATE AND FEDERAL LAND                        |               |              |
| State Parks                                   |               | <u>Acres</u> |
| Ferne Clyffe                                  |               | 1,162        |
| Fort Defiance                                 |               | 62           |
| Fort Massac                                   |               | 137          |
| State Conservation Areas                      |               |              |
| Horseshoe Lake                                |               | 8,160        |
| Mermet Lake                                   |               | 2,404        |
| State Forests                                 |               | 0            |
| State Fish and Wildlife Areas                 |               | 0            |
| Federal Land                                  |               |              |
| Cypress Creek National Wildlife Refuge        |               | 34,497       |
| Shawnee National Forest Proclamation Boundary |               | 66,908       |
| Shawnee National Forest Ownership             |               | 19,244       |
| ILLINOIS NATURE PRESERVES                     |               | <u>Acres</u> |
| Cave Creek Glade                              |               | 40           |
| Chestnut Hills                                |               | 272          |
| Halesia                                       |               | 19           |
| Heron Pond-Little Black Slough                |               | 2,131        |
| Horseshoe Lake                                |               | 579          |
| Mermet Swamp                                  |               | 47           |
| Round Bluff                                   |               | 56           |
| Section 8 Woods                               |               | 322          |
| NATURAL DIVISIONS                             | Acres         | % of         |
|   | <u>in RRA</u> | <u>RAA</u>   |
| Coastal Plain                                 | 256,009       | 57.8         |
| Shawnee Hills                                 | 155,257       | 35.0         |
| Ozarks  | 31,480        | 7.1          |
| Major Water Bodies                            | 525           | 0.1          |

Significant natural features that represent forest, wetland, and aquatic habitats are found at Horseshoe Lake, an old oxbow of the Mississippi River. Near-virgin woods of beech, sugar maple, swamp chestnut oak, and American elm grow on the island in the middle of the lake. Bald cypress, tupelo, swamp cottonwood, willow, and button-bush are found in the shallow water. Several interesting and rare species are known from here, including the spotted gar, pugnose minnow, green treefrog, mole salamander, broad-banded water snake, green water snake, prothonotary warbler, red-shouldered hawk, big-eared bat, and rice rat.



## Cache River

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

6 Miles





## Cache River



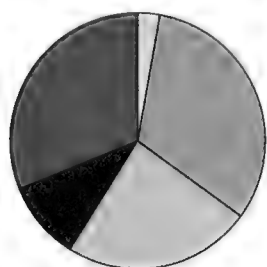
6 Miles



**Size:**  
87,928 acres  
137 square miles

**Location:**  
Southeastern tip of  
Illinois along the  
Ohio River;  
Massac and Pope  
counties.

Landcover at a Glance



|  |                      |
|--|----------------------|
|  | upland forest 31%    |
|  | bottomland forest 9% |
|  | wetland <1%          |
|  | grassland 24%        |
|  | cropland 32%         |
|  | urban built-up <1%   |
|  | water 3%             |

## CRETACEOUS HILLS

*The Cretaceous Hills RRA encompasses the southeastern tip of the state. The area is characterized by rolling hills of sand, gravel, and clay and bottomlands along the Ohio River.*

**LANDCOVER** ♦ Predominant landcover types are cropland (32%), upland woods (31%), and grassland (24%). This site ranks fourth in percentage of upland woods, ninth for grassland, and fifth for bottomland woods. It has one of the lowest acreages for nonforested wetlands.

**NATURAL AREAS** ♦ There are 19 Natural Areas. Important natural features include barrens, springs, lakes, ponds, and flatwoods.

**BIOLOGICALLY SIGNIFICANT STREAMS** ♦ Two stretches of the Ohio River totalling 14 miles are designated as BSS streams.

**HERITAGE SITES** ♦ There are 74 Heritage occurrences. Seven community types, 25 plant species, ten animal species, and two rookeries are located in this RRA.

**STATE AND FEDERAL LAND** ♦ Fort Massac State Park is the only state land in this RRA. Federally owned land consists of 12,000 acres in the Shawnee National Forest.

**NATURE PRESERVES** ♦ Significant features in the two Nature Preserves are slope, ridge, and ravine forests, seep springs, cypress swamp, floodplain forest, and flatwoods.

**NATURAL DIVISIONS** ♦ This RRA is 89% in the Coastal Plain Division and 10% in the Shawnee Hills Division.

### SUMMARY OF SITE CHARACTERISTICS: SIZE, BIOLOGIC RESOURCES, AND PUBLIC LANDS

|   |              |                 |
|---|--------------|-----------------|
| Total Acreage                           | 87,928       |                 |
| Natural Areas                           |              |                 |
| Acreage                                 | 1,940        |                 |
| Number                                  | 19           |                 |
| Biologically Significant Stream Mileage | 14.1         |                 |
| Natural Heritage Sites                  | 74           |                 |
| State Land                              |              |                 |
| State Parks                             | 1            |                 |
| State Conservation Areas                | 0            |                 |
| State Forests                           | 0            |                 |
| State Fish & Wildlife Areas             | 0            |                 |
| Acreage                                 | 619          |                 |
| Percentage of RRA                       | 0.7          |                 |
| Federal Land                            |              |                 |
| Acreage                                 | 11,999       |                 |
| Percentage of RRA                       | 13.6         |                 |
| <b>LANDCOVER</b>                        | <u>Acres</u> | <u>% of RRA</u> |
| Upland forest                           | 27,471.32    | 31.24           |
| Bottomland forest                       | 8,315.74     | 9.46            |





|                     |                 |             |
|---------------------|-----------------|-------------|
| Wetland-nonforested | 412.86          | 0.47        |
| Grassland           | 20,896.33       | 23.77       |
| Cropland            | 28,118.41       | 31.98       |
| Urban/Built-up      | 357.46          | 0.41        |
| Water               | <u>2,353.70</u> | <u>2.68</u> |
| TOTAL               | 87,925.82       | 100.01      |

## ILLINOIS NATURAL AREAS INVENTORY SITES

|  |              |
|--|--------------|
| Burke Branch Research Natural Area     | <u>Acres</u> |
| Caney Creek Site                       | 167          |
| Cave Creek Barrens                     | *            |
| Clear Lake                             | *            |
| Cretaceous Hills                       | 40           |
| Dean Cemetery East Barrens             | 449          |
| Dog Creek Barrens                      | *            |
| Fort Massac Area                       | *            |
| Kickasola Cemetery Barrens and Springs | 183          |
| Klondike Spring                        | *            |
| Lewis Estate                           | 3            |
| Lewis Estate North                     | 355          |
| Lewis Estate South                     | 404          |
| Massac Tower Springs                   | 44           |
| McGhee Flatwoods                       | 45           |
| Poco Cemetery Barrens East             | *            |
| Poco Cemetery Barrens North            | 1            |
| Round Pond                             | *            |
| Snow Springs                           | 247          |
|  | 1            |

\* = point location, map not available

## BIOLOGICALLY SIGNIFICANT STREAMS

|  |              |
|--|--------------|
| Ohio River, L&D 52 to Metropolis         | <u>Miles</u> |
| Ohio River, at mouth of Cumberland River | 2.8          |
|  | 11.3         |

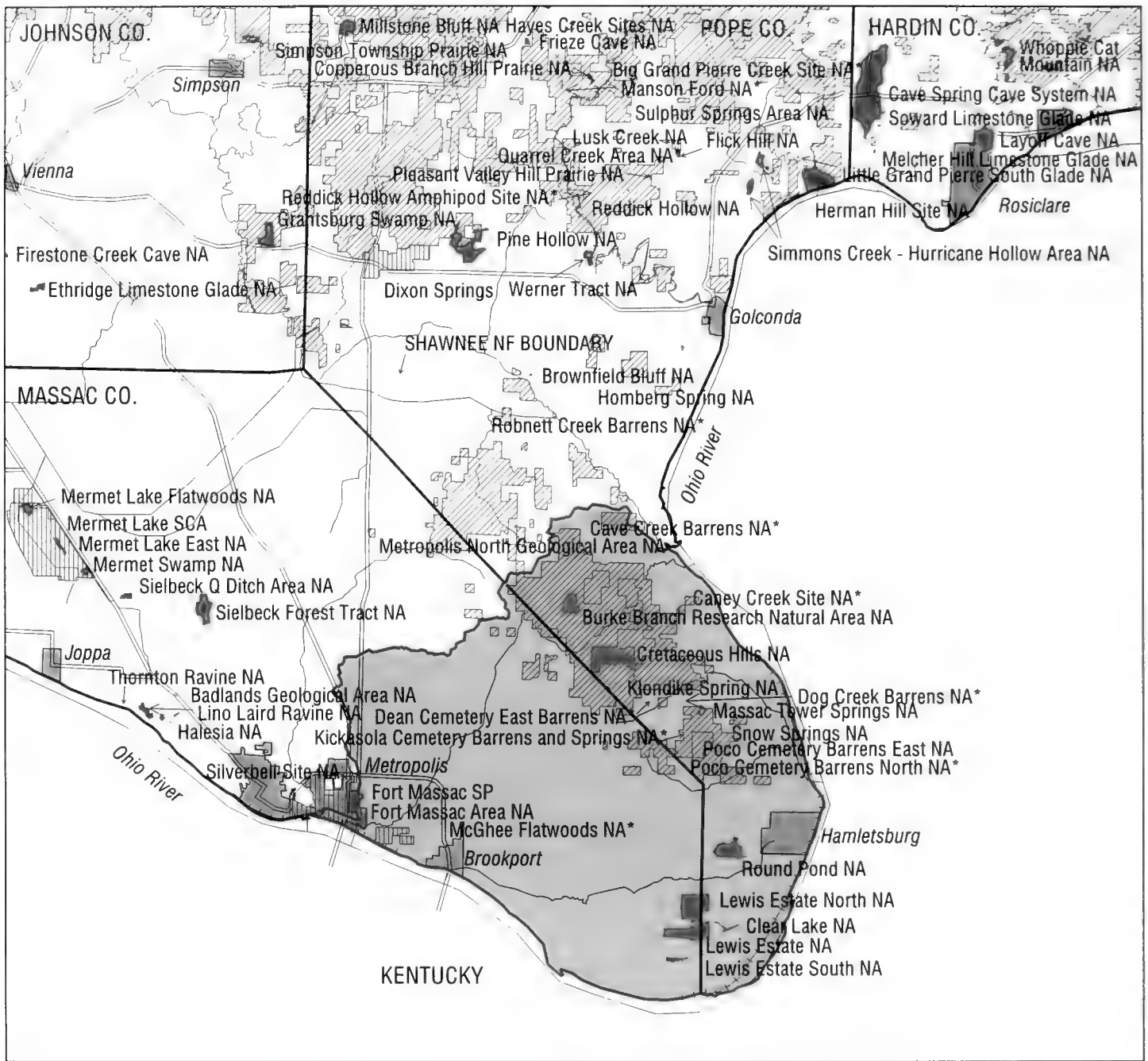
## NATURAL HERITAGE CATEGORIES

|                                   |                    |                      |
|-----------------------------------|--------------------|----------------------|
| Communities                       | <u>Occurrences</u> | <u>Types/Species</u> |
| Floodplain Forest                 | 3                  | 2                    |
| Lake                              | 1                  | 1                    |
| Wetland                           | 5                  | 2                    |
| Savanna                           | 8                  | 2                    |
| Threatened and Endangered Animals |                    |                      |
| Bird                              | 3                  | 2                    |
| Fish                              | 3                  | 2                    |
| Mammal                            | 2                  | 1                    |
| Reptile                           | 1                  | 1                    |
| Mollusk                           | 4                  | 4                    |
| Threatened and Endangered Plants  |                    |                      |
| Plant-Dicot                       | 23                 | 13                   |
| Plant-Monocot                     | 18                 | 11                   |
| Plant-Fern/Fern Ally              | 1                  | 1                    |
| Geological Feature                |                    |                      |
| Other                             |                    |                      |
| Rookery                           | 2                  | 1                    |

## STATE AND FEDERAL LAND





|             |              |
|-------------|--------------|
| State Parks | <u>Acres</u> |
| Fort Massac | 619          |

**C**retaceous Hills is an area of low, gravel hills. Acidic seeps, which support some of the most interesting natural communities in the state, are found in this area. Seeps are caused when groundwater, percolating through the gravel, flows to the surface where it meets underlying sandstone. An abundant and diverse flora grows in these moist areas, including many unusual and rare species of orchids, mosses, and ferns, some with four foot-long fronds.



## Cretaceous Hills

-  Natural Area
-  Town
-  State Land
-  Federal Land

-  Stream
-  Significant Stream
-  Highway
-  County

5 Miles





### Cretaceous Hills



5 Miles



In the Ohio River floodplain are areas of cypress swamp, floodplain forest, and flatwoods. Flatwoods are forests growing on hardpan clay, a soil that is wet in spring and dry and hard in summer. The trees are relatively small, reflecting the harsh soil conditions, and they tend to blow over because of their shallow root systems. The nature preserve in Fort Massac State Park has a large flatwood forest comprised of pin oak, swamp white oak, and post oak.

STATE AND FEDERAL LAND *(continued)*

|   | <u>Acres</u> |
|---|--------------|
| State Conservation Areas                      | 0            |
| State Forests                                 | 0            |
| State Fish and Wildlife Areas                 | 0            |
| Federal Land                                  |              |
| Shawnee National Forest Proclamation Boundary | 30,851       |
| Shawnee National Forest Ownership             | 11,999       |

## ILLINOIS NATURE PRESERVES

|                  | <u>Acres</u> |
|------------------|--------------|
| Cretaceous Hills | 272          |
| Massac Forest    | 156          |

## NATURAL DIVISIONS

|               | <u>Acres</u>  | <u>% of</u> | <u>% of</u>     |
|---------------|---------------|-------------|-----------------|
|               | <u>in RRA</u> | <u>RRA</u>  | <u>Division</u> |
| Coastal Plain | 78,285        | 89.3        | 16.9            |
| Shawnee Hills | 8,824         | 10.1        | 0.9             |



## METHODOLOGY

The identification and characterization of areas rich in biological resources, or Resource Rich Areas (RRA), used an analysis of natural resource data utilizing GIS technology that was guided by scientists with extensive knowledge of ecosystem concepts and Illinois biota. The process of identification of RRAs was begun by meeting with scientists at the Illinois Natural History Survey to develop a list of ecological characteristics and functions of large ecological reserves, and to develop criteria to be applied in identification and evaluation of RRAs.

A landscape level approach envisions the existence of a system of areas that would protect, maintain, and enhance the living natural resources of Illinois. From an ecological perspective these areas need to be large enough to provide habitat for area-sensitive species and to allow management practices to reasonably simulate natural forces (e.g. fire). Further, the areas need to be distributed in a way that the various ecotypes in Illinois are adequately represented. The specific ecological roles of sites were determined to be the following:

1. provide areas large enough to allow for the natural dynamic nature of ecosystems and to allow management to simulate natural forces to meet the needs of various communities and species.
2. protect, restore, and enhance areas to provide the ecological requirements for animals and plants that need large areas.
3. include representative examples of the natural communities of Illinois.
4. protect areas with significant habitat and species diversity.
5. protect habitat types that are diminishing at an alarming rate, such as wetlands, forests, prairies, and biologically significant streams.

Watersheds, as identified by the Illinois Environmental Protection Agency (IEPA), were used as the geographic unit for evaluation and analysis. These watersheds have the advantage of being an ecologically identifiable unit and are important administratively within the state. They have the disadvantage of being irregular in shape and variously sized. The average area covered by an IEPA watershed, of which there are 816, is 69 square miles (44,000 acres). RRA boundaries are derived directly from watershed boundaries.

Criteria for the evaluation and characterization of RRAs were selected because they (1) emphasized ecologically important characteristics; (2) were available as digital statewide databases; and (3) were suitable for analysis using IEPA watersheds. The criteria, analysis, maps, and summaries in this report are based upon ecological characteristics; economics, recreational interests, and other considerations were not explicitly accounted for in this effort. Watersheds were evaluated using the following variables:

1. Forest - percent of the watershed
2. Wetlands - percent of the watershed
3. Illinois Natural Areas Inventory - total area
4. Biologically Significant Streams - total length

The sources of data for the four variables are discussed later in this section.

Time limitations made it impossible to acquire new field data and required that decisions be based upon the best data available for the entire state. The Illinois Natural Areas Inventory and Biologically Significant Streams digital datasets were updated and enhanced for use in the analysis. Other datasets, including boundaries of state and federally owned land in Illinois, were created or improved to provide supplemental information.

The four variables were given equal weight in the analysis. Each watershed was ranked against all other watersheds for each variable.

Watersheds were placed into 10% quantiles for each variable and given a score of 10 points if they were in the top quantile, 9 points in the 81-90 % quantile, 8 points in the 71-80 % quantile, etc. Watersheds in which a variable did not occur were given a 0 score for that variable. The scores for each variable in each watershed were summed; the maximum possible cumulative score was 40. Watersheds were defined as

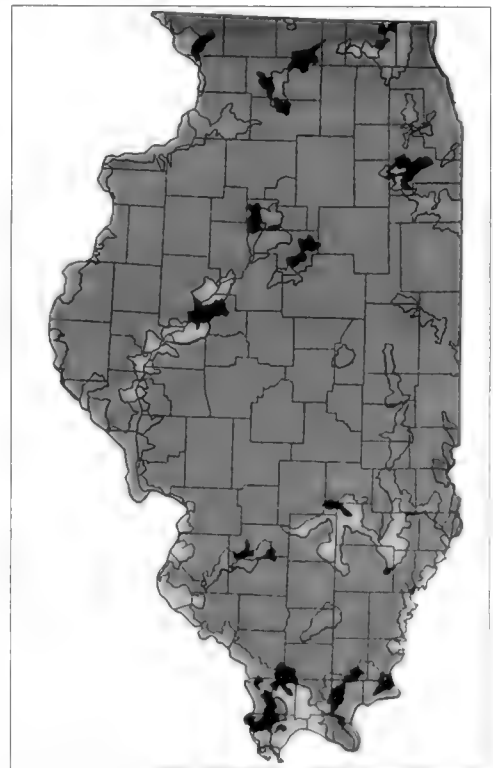


Figure 14. RRA Watershed Scores < 26

resource rich if their cumulative score ranked in the top 10%. This qualification resulted in inclusion of watersheds having a score of 26 or greater (actually the top 12% of all watersheds due to tie scores).

Spatially adjacent watersheds were grouped to form RRAs. All watersheds with scores of 26 or above were included in the RRAs and none were excluded. Review of the selections and additional information and advice regarding inclusion of additional adjacent watersheds and determination of boundaries was provided by an advisory group of four INHS scientists. Some RRAs were modified by the addition of adjacent watersheds with cumulative scores of less than 26 in order to accommodate (1) contiguous landcover; (2) watersheds of the three current IDNR project areas (i.e. Rock River, Cache River and Prairie Parklands; and (3) important natural features that were known by INHS scientists (Figure 14). Boundaries of RRAs with shared borders were determined based on consideration of such factors as natural divisions and drainage basins. RRAs were named for the predominant natural feature, usually the major stream. They are ordered by geographic location from north to south in the tables of this report.

RRAs were collectively and individually described by the occurrence and composition of several characteristics. These include information about landcover classes, Natural Areas, and Biologically Significant Streams, which were used in the screening process. Supplemental data about Natural Heritage communities, state and federally owned land, Illinois Nature Preserves, and natural divisions are also reported. These datasets are described below.

Landcover information was derived from the Critical Trends Assessment Project Landcover Database produced by the Illinois Natural History Survey from satellite imagery acquired from 1991 to 1995. Seven landcover classes were utilized in this project—upland forest, bottomland forest, nonforested wetland, grassland, cropland, urban or built-up, and water. For the screening process, forests were defined as the combination of upland forest and bottomland forest landcover classes, and wetlands as nonforested wetland and bottomland forest classes. Upland forests consists of any wooded, nonbottomland area; these may be relatively small and the term "forest" is applied loosely. The grassland class was not used in the screening because "natural" grassland habitats such as prairies and savannas are not distinguished from grassland impacted by farming and other human uses. The landcover data has a ground resolution of 93.5 feet (28.5 meters) on a side. Each pixel covers 0.2 acres although a filter with a threshold of up to 5 pixels (1 acre) was applied to the database for this analysis. Area calculations reflect the use of the Universal Transverse Mercator (UTM) projection, zone 16, North American datum of 1927.

The Illinois Natural Areas Inventory is a dynamic listing of approximately 1,200 sites known to possess important natural qualities within the state. The INAI database includes sites based on the presence of (a) high quality natural communities, (b) habitats for endangered species, (c) habitats for relict species, (d) outstanding geologic features, (e) natural community restoration and endangered species relocations, approved natural areas and restoration sites, (f) unique natural features, and (g) outstanding streams and rivers (McFall, pers. comm; White 1978). Outstanding streams and rivers were included in the analysis under this category if they were not included under Biologically Significant Streams. The INAI data are maintained by the Division of Natural Heritage of IDNR (DNH-IDNR). The digital database was created and is maintained at INHS and was updated through November 1995.

Biologically Significant Stream designation is based on a comprehensive evaluation of the state's aquatic resources. BSS designation indicates the presence of high quality aquatic systems (Page, et al. 1991). The criteria included fish populations, water quality, macroinvertebrates, endangered and threatened species, and mussel diversity. The database is maintained at INHS and was current as of November 1995.

The Natural Heritage database provided information about significant communities, endangered and threatened species locations, geological features, and nesting bird colonies. INHS maintains this DNH-IDNR database in its digital form and was updated in November 1995.

Because information about state and federally owned land may be important in planning management strategies, a comprehensive GIS database of these resources was developed for this project. IDNR owns the largest acreages of state-owned land in Illinois. The state owned lands database consists of State Parks, Forests, Conservation Areas, and Fish and Wildlife Areas.

Illinois Nature Preserves are areas that retain a high degree of their presettlement character or have significant ecological, geological, or archaeological features (McFall and Karnes 1995). They are dedicated by law to being maintained in their natural state. The digital database at INHS was current as of November 1995 with 236 Nature Preserves (from data provided by IDNR).

Natural Divisions is a classification of the natural environments in Illinois based on topography, soils, bedrock, glacial history, and distribution of plants and animals (Schwegman 1973). Fourteen natural divisions are defined in Illinois.

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PHOTOGRAPHY BY MICHAEL R. JEFFORDS

FRONT COVER:

Heron Pond in fall

Middle Fork of the Vermilion River

Aerial View of riparian corridor

Corn ready for harvesting

BACK COVER

Nachusa grassland

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